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ABSTRACT

The twenty-two papers included in this volume on the theme "Interdisciplinary Aspects of Reading Instruction" represent the views of reading/study specialists and directors for twelve junior-community colleges, two four-year colleges, five state and private universities, one hospital, and two companies which deal in educational products and services. Titles of papers include "The Use of Tutors in the Santa Barbara City College Reading Lab," "The Training and Use of Paraprofessionals in the College Reading Program," "Training Communication Specialists for the Metropolitan Innercity Junior College," "Learning Center Concept in Action," "The Student-Development Center: A Ten-Week Experience in Re-education," "Systems for Learning Assistance: Learners, Learning Facilitators, and Learning Centers," "Reading/Study Skills in a Two-Year College," "Effect of Media and Publishing in the Learning Process," "A Comparison of the Reading Abilities of a Junior College Population and the Readability Levels of Their Texts," "The Relationship of Affective Changes to Cognitive Skills Development," "A Behavior Management Program for Teaching Introduction to Composition," "Cultural Linguistic Approach to the Teaching of Reading," and "A University Learning Center." (MKM)

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PROCEEDINGS
OF THE
FOURTH ANNUAL CONFERENCE
OF THE

WESTERN COLLEGE READING ASSOCIATION

VOLUME IV: INTERDISCIPLINARY ASPECTS OF READING INSTRUCTION

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PREFACE

The papers reprinted in this Annual Proceedings of the Western College Reading Association were delivered originally to WCRA participants at the Fourth Annual Conference in Los Angeles, California.

The twenty-two papers in this volume represent views of reading/study specialists and directors from twelve junior-community colleges, two four-year colleges, five state and private universities, one hospital, as well as the thoughts of two executives who deal in educational products and services.

Arrangement of the papers is alphabetical by author rather than by order of conference presentation. None of the material reprinted here has been published previously.

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PROCEEDINGS
OF THE
FOURTH ANNUAL CONFERENCE
OF THE

WESTERN COLLEGE READING ASSOCIATION

THEME: INTERDISCIPLINARY ASPECTS OF READING INSTRUCTION

April 1 - 3, 1971

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The Use of Tutors in the Santa Barbara City College Reading Lab

W. Royce Adams
Santa Barbara City College

About two years ago, some concerned Santa Barbara City College students began offering tutorial aid to fellow students who were having difficulty in the basic skills of reading, writing, and math. The positive effect the volunteer tutors had on their tutorees and themselves generated enough interest among faculty and staff to investigate the possibility of enlarging their efforts. The result was the development of a Tutorial Center at the college as one aspect of a more comprehensive Learning Resources Center which is in the planning.

Beginning its services in a leased trailer, the Tutorial Center is now located in the Student Campus Center Building and houses a reading lab, a math lab, and facilities for comfortable tutoring. Last year and this year funds were obtained from the State of California (the Alquist Bill SB164) for paying tutors who worked with the educationally disadvantaged students while NDEA funds were obtained for purchasing equipment. In addition, the Santa Barbara Community College District allocated funds for hiring a Director for the Tutorial Center, renovating rooms for the Center, and matching obtained government funds. The total budget for this year is approximately $72,000.

Persons wishing to tutor are required to fill out an application and hold an interview with the Director of the Tutorial Center. After learning the functions of the tutorial program via the Director, the applicant is interviewed by a panel of three people: two instructors and one tutor already involved in the program. It should be noted that this method of selection, as well as most all tutorial policies, was decided upon by the Director and the tutors who have organized themselves into a group called the Associated Tutors of Santa Barbara City College.

The hiring of tutors is not restricted to SBCC students, although priority is given to those applicants. However, students from the nearby University of California

are involved in the program as well as housewives with degrees in English. The main attempt is to find tutors who have confidence in their tutoring skill and who are concerned with helping struggling students to succeed.

The Tutorial Center's programs are still expanding and extend beyond what will be mentioned here. The rest of this paper will discuss only the use of tutors in the reading program.

There are two types of tutors used in the reading program. One type is the paid tutor who works fifteen hours per week and receives $2.25 per hour. In addition, he attends a training session once a week where he receives instructions in methodology and peer-group counseling. He is usually assigned to work with two or three students on an individual basis and assigned five or six hours a week in the reading lab. The second type of tutor is the volunteer who prefers not to be paid or prefers to work with only one person. The volunteer tutor is assigned to a reading instructor and is required to attend training sessions once per week. In both cases, tutors can, if they choose, receive two units of independent studies in the area of English or Social Science Field Work.

All tutors in the reading program are required to meet with the reading instructors once a week plus attend a general meeting for all tutors once a month. The general monthly meeting is conducted by the Director of the Tutorial Center who deals with methods and procedures of tutoring in general. The weekly meetings in the reading division are related to clarifying course objectives, to training in the use of lab materials and equipment, to "rap" sessions regarding individual tutoring problems, and to re-arranging individual tutoring schedules.

In addition to hand-outs which offer tips and aids in accomplishing tutorial tasks, students are provided with a library of resources. Some of those are: For the Volunteer Tutor by Rauch (10); How to Increase Reading Ability by Harris (4); Reading for the Disadvantaged by Horn (6); Phonics in Proper Perspective by Heilman (5); Teacher's Guide for Remedial Reading by Kottmeyer (7); How to Read the Social Sciences by Brown and Adams (3); How to Read the Humanities by Adams (1); How to Read the Sciences by Adams (2); A Concise Handbook by Weaver (11); and other various reading texts and journals contributed by instructors and the library. Tutors are referred to these works on a regular basis during training sessions.

To understand more clearly how the tutors function in the reading program, a brief description of the reading course using tutors is in order. English 42, Reading and Writing Skills, is offered as a four or six unit non-transferable course. If a student elects to take the course for four units, he is required to attend two section meetings per week and spend a minimum of two hours per week in the reading lab. If a student elects to take the course

for six units, he is required to attend two section meetings per week and spend a minimum of four hours per week in the lab. After the administration of the Nelson-Denny (8) and the Diagnostic Pre-test from Tactics in Reading II (9), each student is interviewed by the instructor and an individual program is established for him to follow in the reading lab. The student then has a profile of his needs and a set of performance objectives to complete.

As students are interviewed it is determined whether or not they need or want a tutor. In many cases, tutors are assigned immediately to work with a student on his set of objectives. In some cases, students do not feel the need for a tutor and elect to work on their own. However, tutors are scheduled to spend part of their fifteen hours in the lab so that it is staffed from 8 AM to 4 PM. In addition, instructors schedule their office hours and part of their regular assignment in the lab. Since students are asked to attend the lab on a scheduled basis, it is possible to staff the lab so that there are more tutors and instructors available at the busiest hours.

In the lab, tutors function in the following capacities:

1. They clarify objectives and show the tutees how to use the various lab materials and equipment.
2. They give the students encouragement and confidence.
3. They encourage attendance and follow up on student absences by calling him at home or sending notes home.
4. They go over the student's corrected papers and lab work to make certain he understands all mistakes indicated.
5. They keep the section instructor informed of the student's progress.
6. They listen to the student's complaints or problems.
7. They encourage the student to keep his file folder up to date.

Occasionally, the tutors are requested to come to the section meetings when new objectives are introduced so that they will know what is expected of the student. They also come to section meetings when students are doing writing practices so that they, along with the instructor, can circulate around the room checking students' work and offering aid where needed.

Because the tutorial program exploded into being, there were no precise controls established to measure the effectiveness of the use of tutors in the reading program. However, one instructor in the English 42 program did keep the following records.

The persistence and performance history of the instructor's students is shown below as Table 1.

Table 1

Persistence and Performance of 75 Enrolled English 42 Students

75	100.00%	Original roster
10	13.22%	Withdrew or were re-assigned during first 5 weeks
24	32.00%	Withdrew during the rest of the semester
41*	63.07%*	Completed with C or better (No D or F grades are awarded. W's are given to students who do not pass the course.)

*(of 65 persisting beyond 5 weeks)

Of the 65 students enrolled beyond the fifth week, 24 (36.94%) received regular tutorial assistance from the center. The comparison persistence among tutored and non-tutored students is given in Table 2.

Table 2

Persistence: Tutored and Non-tutored Students

Group	N	Withdrawals	
Non-tutored	41	24	58.53%
Tutored	24	0	0%
Total	65	24	36.94%

It is obvious that the persistence rate between the two groups is dramatic. (Past records reveal that about 65% of the students who enroll in English 42 are likely to complete the course.) Over 70% of the non-persisting students withdrew entirely from college, not just English 42.

Table 3

Pre-Test, Post-Test and Gains for Tutored vs Non-Tutored Students

Group	Pre-test	Post-test	S.D.	Gain
Tutored	7.64	9.9	2.4	2.30
Non-tutored	9.39	12.22	2.5	2.78

Table 4

Cumulative GPA: Tutored vs Non-tutored

Group	mean GPA (cumulative)
Tutored	2.25
Non-tutored Persisting	2.03
Non-tutored Withdrawals	1.69
(All non-tutored)	(1.85)

While these results were not obtained on a planned experimental basis, they do seem to reflect that the particular value of tutoring assistance is in the area of persistence. Students who otherwise may not have finished the course seem to have received enough individual help and encouragement to successfully complete the course.

The Director of Research at the college is presently doing controlled studies on the use of tutors in the reading program. Further information will be forthcoming. One thing is clear: the difference in persistence among students who are shown that others care and can help them is sufficient evidence to suggest the continuation of the tutorial concept in the reading program.

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The Training and Use of Paraprofessionals in the College Reading Program

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The use of the tutor and paraprofessional has long been discussed in the literature of the elementary and secondary schools and in the clinic; but their use in the college reading program is not discussed or to be found in the literature except for a paper delivered at the North Central Reading Association in 1962 by Ernest Kinne (3) and in an article in the Journal of Reading and in The Western College Reading Association Yearbook (Volume 2) by Martha Maxwell (5) and also some general articles about the training of reading teachers. It would seem, one can only assume, that this particular topic is not considered an "issue" in the field of reading education.

Few universities offer a methods course in the teaching of reading at the junior college, college, or university level. Yet, we are faced with the acute problem of many students who wish to enroll in a reading improvement course and an inadequate supply of qualified and trained instructors to teach these courses.

Martha Maxwell (6) states that one of her functions at the University of California is to set up a training program for high school and college reading specialists. She found that most graduate students are far more interested in preparing to work with the younger, culturally different child who needs remedial help, than they are in preparing older students to get into and remain in college.

Although college and university reading improvement programs are expanding, there seems to be no rush at the university level to train people as college reading specialists.

Frustration is the key word when a search is made to hire reading specialists to teach in a college reading program. I have found that in order to staff a reading program, it is necessary (1) to train my own instructors, (2) use the reading specialists available on the university faculty (who already are teaching a full load of methods courses and do this as a side-line or for extra money, or (3) train paraprofessionals to assist in the operation of the program. I might

add that this shortage of trained college reading specialists is growing and promises to become more serious.

When the decision is made to use and train a person as a paraprofessional, we must begin to define the role the person will serve in the reading program. Such questions as: Should selection be made from persons who have a B.A., or at least some college training? Should graduate students in reading only be used? Should the person under consideration have any training in reading eduction, and if so, at what level? What role will the paraprofessional play in the program? All of these questions and many more need to be considered and explored before any selection process or training program begins.

In choosing personnel for such a program, consideration must be given to the basic philosophy of the reading program and the instructors involved, as the instructor can make or break a program. The instructor s attitude toward the course is as important as his knowledge of reading. As Staiger (7) points out so wisely, a negative person or a compulsive talker does not belong in a course in which attitudes toward reading and study are being developed and in which silent reading is being practiced.

Personnel in our program were selected from graduate students enrolled in the Master of Arts in Reading Education. These students had some basic work in reading, were in residence in the university, and had some classroom experience either at the elementary or secondary level. None of these students had any experience in teaching reading at the post-secondary level, but several of them were interested in teaching at this level and wanted some experience, as they were looking to the junior college for future employment.

We felt that one of the best ways to begin the training process for these students was for them to take the reading improvement course. It is difficult, though not impossible, to teach something you do not know yourself. Therefore, being enrolled in and taking the reading improvement course exposed the student to both sides of the coin: a student in a learning situation and as an observer of the teaching methods used in the program.

After completion of the reading improvement course, each student was placed under the supervision of an experienced instructor--somewhat similar to a student teaching experience. He was then given the responsibility under supervision, of teaching certain areas of the program. For example, he might have been asked to prepare a session on previewing or textbook reading. The material was prepared by the student, checked by the instructor, discussed by them both for possible deletions or additions, and then the student presented the lesson to the class. Using this method of training allowed us to select the best candidates to become instructors in the program.

Our supply of M.A. candidates was by no means endless. We were faced with an individualized reading program in name

only. We had instructors, but no trained personnel to assist the instructors in order to allow them to really individualize the program to fit the needs of each student in the class. Therefore we began the process of selecting undergraduates from those who had taken the reading improvement program and had shown some interest in working as a paraprofessional. We then developed a training program to train them in certain critical areas in order to release instructors whose expertise might be used to achieve individualization.

In order to develop an effective training program, we surveyed our student population to determine the areas they felt needed more concentration and improvement in the program. We found that they wanted more individual help in using materials, machinery, and in learning study techniques. They also wanted more supervised practice time outside of the regular class session.

With this information, we developed a training sequence for the paraprofessional.

In developing our training sequence and in selecting undergraduates to work in the program we tried as much as possible to keep within a reasonable set of criteria. Realizing that many undergraduates had no training in reading or at best had completed only one reading improvement course, we needed to give them some basic foundation in reading.

We required each candidate to read selected passages from texts such as Glock's The Improvement of College Reading and Leedy's Reading Improvement for Adults. (For a complete list of the required readings see Appendix A).

It was felt that this material, written to the student, would be understandable and profitable reading. Pre-reading questions were developed for each reading so that the candidate had some direction and purpose for this reading and could answer these questions when queried by the instructor and discuss it with him if this was felt to be necessary.

We spent several sessions with each paraprofessional on the use and abuse of the reading accelerator, the controlled reader, and the skimmer and scanner. Each was also required to read carefully the instructor's manuals for each of these instruments.

Test administration and scoring is time consuming, and we felt that this was an area where pressure could be taken from the instructors. The Nelson-Denny Reading Test is straightforward and not too difficult to administer. The self-scoring answer sheets make scoring the test a fairly simple operation. The Survey of Reading/Study Efficiency by Frank Christ (2) is a self-scoring instrument and used with our first year students only. The Survey of Study Habits and Attitudes by Brown and Holtzman (3) is used with second year students and above and must be hand scored and is a rather time consuming task. The Reading Versatility Test (4) is also administered to all students in the program. The paraprofessionals were trained to administer and score all of these in-

struments. Test interpretations were done by the instructors. The time saved in having the paraprofessional administer and score these tests was overwhelming. Students who entered the program after the initial testing had been given were administered the tests by the paraprofessionals outside of class time and the results passed on to the instructor so that he could plan a program and analyze the student's reading needs before the next class meeting.

Another area where the paraprofessional can be easily trained and therefore become most helpful to an instructor is in study skills. Since most of the undergraduates we selected were not education majors, but had academic or technical majors, we found them to be a valuable asset in helping students with study skill techniques in their academic areas of common interest. Since we do not advocate one study technique to the exclusion of any other, this affords an opportunity for the paraprofessional to develop a technique which is workable and can be used by other students in the same academic areas.

A problem in our reading program was affording students extra time outside of the regular classes for practice and more individual attention. The paraprofessional helped us to solve this problem by allowing the establishment of a reading laboratory which operated outside of the regular class schedule. This lab allowed students to do additional practice, work with machinery, or do assignments under supervision that had been planned by the instructor. The paraprofessional assisted the students in locating the proper material, helping with the machinery, and also working with him on an individual basis with certain skill development as outlined by the instructor. The use of the paraprofessional in running and supervising the lab allowed the instructors more latitude in their class assignments and, if they so desired, could assign a particular task for a student to complete in the lab.

In our program we allow students to check out material on an over-night basis. The paraprofessional became our librarian. He was also used as a clerk to prepare work-counts for material that needed them, pacer setting charts, answer keys. He also made sure that a copy of each item was affixed to each piece of material that required it. He typed teacher-made material and did the necessary clerical work to make them ready for classroom use.

A training technique which we found to be an excellent device was to have them develop specific bibliographies based on skill development areas or academic subject areas. This activity required the paraprofessional to classify materials under several types of classifications - academic subjects or skill areas. The first bibliography to be developed was done in the area of academic subjects. Each piece of material was examined, and the readings contained in the material were classified under the proper academic area. Another bibliography was developed along the lines of skill development areas and classification.

We found these materials to be extremely valuable in assisting both the instructor and the student. If, for example, an instructor wanted a student to do independent reading and further development in the area of reading for details, he could refer the student to the skill area classification list or have the paraprofessional give the student assistance.

The paraprofessional also accepted the responsibility of checking the student's work, giving further direction, or reporting the results to the instructor.

Periodic meetings or seminars were held with the paraprofessionals and the instructors to discuss problems that may have arisen or to discuss and develop teacher-made materials that could be used to assist students.

The training program outlined here has been in effect for three years. We have found definite advantages in the use of the paraprofessional in our program. In fact, if we did not have trained paraprofessionals, our program would not be as effective or as individualized as it is. The paraprofessional frees instructors from the numerous clerical tasks involved in such a course; he assists the instructor with small groups of students; he supervises the lab and works there directly with students; he allows the instructional staff to run an individualized program; he assists the students in the use of the hardware used in the program; and he insures a smooth running program that has expanded because of the paraprofessional.

We hesitate many times in the field of reading to use "unskilled" or untrained people because we look upon the area as one in which the person who instructs should be a specialist. This is true, but the specialist, if he is to be effective and help students function successfully, needs some help. The alternative of training a person to give this help has proven to be both practical and successful. It is a matter of priorities, of what can be done to relieve the instructor to help each student reach his full reading potential. I do not advocate that the paraprofessional be a teacher, but a partner in the teaching process to aid both the student and the instructor.

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Training Communication Specialists for the Metropolitan Intercity Junior College

H. O. Beldin
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"Come in, come in. Everyone is welcome! Qualifications? Don't worry. We'll help you through. Higher education is here for the taking. Welcome."

With this voice community colleges and some four-year institutions announce their open-admissions policy. Reflecting a developing social conscience, colleges are setting aside traditional ideas of academic qualifications for higher education and opening their doors to a large population which they previously ignored or turned away.

Open admissions in some ways is recruiting. It, therefore, contains some responsibilities new to many colleges. If an unqualified person is urged to enter college, he rightfully expects to complete his program. If his program is unrealistic because he lacks interest or aptitude, he will need counseling and guidance. If his program is reasonably chosen, he may still need help in learning how to do academic work, to play the game. In the final analysis, evaluation of open admissions cannot be done on the basis of numbers of students entering college, but on the percentage successfully completing their chosen program in higher education. Did they learn soon enough how to play the game? Did they get the help they needed? Help? Why is special consideration in some form apt to be necessary?

The Need For Help

Look briefly at the characteristics of students taking advantage of an open-admissions policy. Most have meager academic backgrounds. Ignoring ethnic differences, we find a commonality, inner-city poverty. Without ascribing blame, the schools serving inner-city poverty areas are much less than adequate in college preparatory work. About the last thing they produce is scholars.

Secondly, most of this new breed of college student have not been "thinking college" throughout life. Literally a student may have been "sold" college by someone who believes

strongly in its long-range value. He has been convinced by others that higher education will work wonders for him. Suddenly he finds himself in a strange campus world and he is not certain why he is there.

Thirdly, most students are not realistically task-oriented; most have little appreciation of standards and requirements. In the past these students ignored assignments and were passed along and many expect to do the same in college and still get educated. A student may have never studied independently before and he does not expect to now. Since he has only this personal frame of reference to draw upon, his first inclination may be to view higher education as more-of-the-same. Left to himself, he very quickly gets into academic difficulty.

It is common for the open-admissions student to be very inadequate in using the traditional communications skills of reading, writing, speaking, or listening. Many open-admissions students will have complete and linguistically functional oral language patterns not suitable in higher education. They cannot comprehend material presented in lectures and their instructors cannot always understand their responses to questions. Remediation of this problem may require an "English as a second language" approach. This procedure can take a lot of time.

Secondly, however measured, it is clear that the general reading achievement levels mastered by open admissions students are woefully inadequate. They cannot meet the reading requirements of introductory literature courses. Of course they have little hope of learning adequately from content area textbooks. Add to this situation an almost complete absence of study skills and it is obvious that the problem is immediate and complex.

Thirdly, there is an inadequate development of skill in writing. They do not believe they can write. There is little reason why they should; all they have gotten for their previous writing efforts is criticism of their mastery of composition mechanics and little positive reaction to their ideas. Lack of spelling knowledge further complicates this situation. The problem's complexity is beyond the usual college composition course but in terms of general writing skill development it is below that accepted in freshmen composition.

In summary, then, it is common for the open admissions student to be educationally disadvantaged, lacking the traditional communications skills of reading, writing, speaking, or listening in the most minimal sense. He is unaccustomed to thinking college, and very unrealistic about college standards. This combination of factors predicts academic failure. Help, especially in the first year, is needed. While the distant goals of higher education may be generally admired, from almost the first moment, the open admissions student is concerned with surviving next week's examinations. He cannot afford a leisurely program that

first raises general skill development before attacking practical every day problems. He needs help now!

What Kinds Of Help?

Some colleges group educationally disadvantaged students into special sections. The theory is that by providing them with deeply dedicated instructors who work closely with their students and by moving the group through an introductory academic program designed to ease their adjustment to college, the students can reinforce and support each other and obviate the sometimes devastating effects of college strangeness. Every effort is made to help these special students survive: special instruction in study skills and group and individual counseling is available.

Another method is being tried at New York University. Essentially it is impossible for the student to flunk out; he is allowed repeated registrations in a course until a passing grade is achieved. Students are not grouped into special sections or offered a modified curricula, but there is an increased emphasis on individual counseling and the provision of reading/study skills services.

Upward Bound, a federally financed project, has been successful. The program at Western Washington State College recruits students in high school as juniors, provides them with two summers of work on the college campus, guidance during the senior year of high school, and admission to college after the second summer. All of the students are considered intellectually able to do college work, some were academically able in high school, and for the academically disabled, remedial work was provided during the summers. The residential component, students and staff living together during the summer program, is a strong factor in strengthening and enchancing the self-identity of the students.

Unfortunately, by far the most common approach is the change in admissions policy and nothing more. Colleges have been slow to react to the communications needs of these students new on the education scene; they have not provided counseling or ample services. In colleges where services are available, it is difficult to get students to use them. The reputation of the study skills/ reading centers is poor; attendance is irregular unless credit is required or a substantial fee is charged. Without special help the student dropout rate is high.

These students need a total language approach. They need help in speaking, in listening, in writing and in reading. They need help in adjusting to college and help in studying. They need teachers skilled in the human aspects of counseling and teachers who are broadly educated in several language disciplines, English, speech, linguistics, composition and reading. These students should work through a communications center so that their programs are not fragmented in four or more departments.

The concept of a 'communications center' which offers most of the help needed by open admissions students is central to this paper. Rather than treating a writing problem in one department, the oral language problem in another and so on, the student should be offered a coordinated and total program in a single facility designed for that purpose. The center would offer campus-wide service, would have the necessary professional and ancillary staff, physical facilities and equipment. The center would help any student who has one or any combination of the communications problems previously described. It is suggested that this total program solving approach would be much more effective, and efficient, than the fragmented department-by-department approach now currently in vogue.

The communications center, like the counseling center, should be a part of the total student services offered by the college. Many academic departments are not oriented to doing remedial work; the job is often assigned to the lowest or weakest member of the department or rotated among faculty members so that no on bears the cross too long a time. This philosophy or administrative approach does not provide quality service combined with empathy for the student's problems. The professional staff working with open-admissions students must see value in their work and like what they are doing. Placing the communications center within student services gives it a desired and respected place on the college campus.

Training College Communications Specialists

Western Washington College has a special program to train inner-city communications specialists. The program is financed under Title E, EPDA, for two years, 1970-72. Fellows in the program generally are experienced secondary school teachers in a language area: speech, speech therapy, reading, or English. At the end of the program all the Fellows will qualify for a Master's degree and will have competence in developing oral language, the teaching of reading/study skills, and teaching writing and composition. Each participant's program is tailored to meet his needs. For example, a participant who holds a B.A. in English Literature will take little formal work in this field, but will take speech therapy or reading or whatever else he does not already have. All the Fellows take work in the history of communications, interpersonal communications, orientation to community colleges, and work in counseling procedures.

One unique strength of Western's program is the four terms of supervised practica. Beginning in the initial phase of the program these practica give the participants an opportunity to break into working with open admission students. Early in their program, participants work in the college reading/study skills program and the writing workshop; they begin with one student and gradually increase

their work load. The participants draw support from current course work and close association with the experienced faculty directing these programs. They slowly assume more responsibilities for a student's communications skills problem designing programs to remediate problems, and teaching the programs to its successful conclusion.

In the sixth term of the program the Fellows enter full-time internships in metropolitan community colleges. For six months they will teach in the regular communications program offered by the community college. In addition, they will make an analysis of the effectiveness of the program and provide suggestions for its improvement. The interns will get experience in program analysis and administration, a vital part of the problems they will encounter as full-time professionals.

The Western Washington State College program recognizes the demand for broader communications curricula as a response to open admissions. The program goes beyond training teachers in a single skill areas to training directors who can implement new programs in communications centers. The theoretical orientation is extensive so that these directors can train their own paraprofessional staff. Higher education is becoming more aware of the problems associated with crossing ethnic lines. For example, a black student may be more receptive to suggestions for studying and college adjustment when they are given by a black teacher. If colleges are not to become extended holding stations, students must have minimum communications skills to be successful. Communications center directors able to train staff from a variety of ethnic backgrounds can establish a center viewed as more friendly by members of inner-city minority groups. With this point in mind, Western's program searches for contact with minority group students to provide practical orientation and experience for its participants. The multiplier effect of this program, in training a staff, justifies its length.

Open admissions carries with it some responsibilities new to many institutions of higher learning, responsibilities they are ill-equipped to meet. This policy change has brought to the college campus a new breed of student who often has glaring inadequacies in his mastery of the basic communications skills. The assumption that he enters college able to learn traditional college work is, in large part, no longer valid. If open admissions is not to be an expensive experiment that failed, these problems must be successfully solved. Can they be, or are we already too late?

Learning Center Concept in Action

Jerry Berg, Jim Ellison & Doris Rose
Lane Community College

Lane Community College is a two-year, open door institution with a yearly enrollment of approximately 19,000 full and part-time students. The college serves a diverse student population by offering liberal arts, vocational, general and remedial education, adult education, and apprenticeship programs. As an open door college, we recognize that a significant number of our students will enter with deficiencies in math, reading, and English. We also recognize that before these students can take advantage of their educational opportunities, these deficiencies must be corrected. It was the initial role of the Study Skills Center to provide this corrective help, but our role has since expanded to that of a learning center. We still provide remedial and corrective services, but in addition we supplement and re-enforce the general curriculum of the college. By undertaking this expanded role, we serve a larger segment of the student population, and we have removed the remedial stigma that is so often associated with corrective programs. As a learning center, we provide the students with special learning tools, materials, and trained personnel to facilitate and enrich their educational opportunities. Through the learning center, students are provided with supplementary and programed texts, audio-tutorial materials, audio devices, filmstrips, and teaching machines.

Organization and Staffing

The Study Skills Center is an instructional department of the college, directly responsible to the Dean of Instruction. The department is funded from the general operating fund of the college, and competes with all other instructional departments for budgetary considerations.

The Center requires a staff of twenty people. The instructional staff is composed of a director, three full-time reading instructors, three part-time reading instructors, two half-time math instructors, a part-time business in-

structor, and a half-time English-as-a-second-language specialist. We are using two para-professionals to assist instructors with students and to assist students with materials and equipment in the lab. Our secretarial staff is composed of two full-time secretaries, four work-study students, and a full-time clerical person to handle our tape dubbing requirements.

Programs

We offer three types of learning programs:

(1) an individualized program in which the student works in the Center under the guidance of an instructor;

(2) an independent program in which the student checks out appropriate programmed materials and works on his own with the option of returning periodically to consult with an instructor; and

(3) group classes in reading, study skills, and spelling.

Although attendance at the Center is voluntary, and no credit or grade is given for the individualized programs, the group classes in reading and study skills carry vocational credit. The resources of the Center are available to all LCC students free of charge, but non-LCC students are assessed a quarterly fee for the use of the facility.

Individualized Program

A student with a serious skill problem would enroll in our individualized program. He is assigned to an instructor and scheduled into the Center on an appointment basis. The instructor is responsible for diagnosing the student's problem and constructing corrective lessons. Multi-level materials and several modes of learning media can be used in developing a lesson. Each lesson generally lasts one hour. The first fifteen minutes of the lesson are spent consulting with the instructor and the student spends the balance of the time working independently in the lab area. As the student leaves the Center, he leaves his record folder, which contains his lesson plans, diagnostic information, and answer sheets with his instructor. This allows the instructor to review the student's performance and plan the next lesson before the student returns for the following appointment.

Independent Program

The Center contains a wide variety of material that lends itself to independent study programs. The math program is an independent program that has been very successful. Through the math lab, we can provide the student with math materials from basic arithmetic through college math. If a student is enrolled in a college transfer or vocational math course, and he is experiencing difficulty mastering a particular concept or skill, he can use the services of the math lab to correct his problem. The math lab instructor will

consult with the student, isolate his problem, and supply him with the appropriate programmed materials. If the student requires some assistance in addition to the programmed materials, he is encouraged to return to the math lab and seek the assistance of the instructor. The math lab is staffed from 8 a.m. to 5 p.m. Monday through Friday.

The foreign language, science, and music departments are also making use of this independent format. These departments are using cassette tapes to supplement their classroom instruction. The student checks into the lab, checks out a cassette player, headset, and taped lesson. He then proceeds to a study carrel and completes the lesson independently. The cassette players and tapes can be checked out overnight or for a weekend; however, several language classes have been checking them out for the entire term. Since the lab is open from 8 a. m. to 9 p. m., the student has considerable latitude in completing his assignment.

Group Classes

During Spring Term we will be offering group classes in reading, spelling, and study skills. We are scheduling five sections of Accelerated Reading, four sections of Effective Study Skills, and two sections of Spelling.

The Accelerated Reading course is designed to refine and extend the reading skills of the average or above average reader. We have defined the average reader as one who can read at least 250 wpm with 70% comprehension, on the Triggs Diagnostic Reading Test. The class meets for 24 hours and carries two hours of vocational credit. It is graded on a pass-no pass basis. The emphasis is on the development of an efficient, flexible reader through the application of a variety of reading techniques. This same class has proven very successful when offered to members of the community through the Adult Education Division.

The Spelling Class which is in its embryonic stages, is offered as a self-improvement course on a non-credit basis. We are using several spelling texts, tapes, and different types of instructional media. The student is taught a specific technique for learning words, and he develops his own list of "functional" spelling terms from his writing vocabulary. These functional words are taped by the student and checked by the instructor for the correct pronunciation and usage. This also serves as a mastery spelling test for the student. In conjunction with the development of functional word lists, certain spelling generalizations and principles are also taught.

The Effective Study Skills Course emphasizes five basic study strategies: (1) a textbook study technique-SQ3R; (2) time management; (3) examination skills; (4) notetaking techniques; and (5) library skills. The course is 18 hours in duration and carries one hour of vocational credit. It, too, is graded on a pass-no pass basis. We strive to develop these five strategies to a functional level through direct classroom practice. The class is functional rather

than theoretical in nature; the student is applying the skills in class rather than just listening to an instructor talk about them.

Student Enrollment

During Fall Term we registered 1100 students to use the resources of the Center. Since some of these students were enrolled in more than one program, we showed a total enrollment of over 1500 students. The Center is used to accomplish many different goals:

(1) for the student whose education has been interrupted and is now returning to college, the Center allows him to get back into the "swing of things" before entering regular classes;
(2) for the adult who has never been to college it affords an opportunity to experience the learning process without the demands or pressure from the classroom;
(3) for the student with a severe learning problem or skill deficiency, it offers an opportunity to correct the handicap without exposing himself to embarrassment; and
(4) for the student with a specific learning problem, it presents an avenue of personal and immediate attention.

Summary

The learning center concept answers a number of the demands being made on education today. It provides the student with a variety of learning experiences without the rigidity and restraints of a conventional classroom; it encompasses students at all skill levels; it encourages the initiation of new learning techniques; it serves as a viable forum for the discussion of student learning problems; and most important, it offers the community college student a humanized solution to his skill problems.

The Sudent-Development Center:
A Ten-Week Experience in Re-education

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The Student-Development Center (SDC) at Mount St. Mary's College in Los Angeles originally was designed in early 1969 as a model for a college-wide learner-oriented developmental program. It was formalized as a coeducational center for collegiate low achievers, and subsequently opened to students in September of that year.

Model and Methodology

The overall purpose of the Student-Development Center was to transform the previously ineffective life styles of collegiate low achievers into behaviors appropriate to academic success. The following pragmatic learning model provided a structure within which such effective behaviors might be implemented:

Incorporative Behaviors

Visual	Aural	Kinesthetic
Reading Speed	Listening Interpersonal communications	Eye-hand co-ordination
Vocabulary	Lectures	Efficient movement
Retention		Bodily awareness
		Touching behavior

Selective Attention

Main and subordinate ideas

Sensitivity to environment

Processing Behaviors

Thought	Emotion	Motivation
	Experiential	
Critical analysis	Situational anxiety	Need achievement
Creative synthesis	Fear of failure	Goal setting
Problem solving	Fear of success	Time scheduling
	Alternative	
	Appropriate risk taking	
	Appropriate emotional expression	
	Receptivity to feedback	

Projective Behaviors

Written Expression	Movement	Oral Expression
Task		
Note taking	Non-verbal self expression	Correction of major speech errors
Outlining	Appropriate risk-taking behavior	Self expression
Test taking	Behavioral commitment	Presentation of ideas
Formalized Writing		

Verbal/non-verbal Congruence

Process
Differentiation of task and process
Self expression
Presentation of ideas
Style

Courses were developed by the Center's staff which would

1) Create an individualized program to develop pre-academic skills.
2) Encourage supportive and meaningful relationships among students and staff.
3) Structure experiences which demand appropriate risk-taking behavior and imaginative articulation of new perspectives.
4) Emphasize the interdependence of bodily, emotional, and intellectual processes.
5) Provide multiple alternatives to unsuccessful individual learning behaviors.
6) Demand explicit articulation of goals and their translation into behavioral objectives as well as relate these considerations to the efficient use of time.
7) Make clear the differentiation of the student's tasks from his personal, internal processes.
8) Distinguish ritualized behaviors from genuine involvement in task and process.
9) Provide continuous feedback concerning discrepancies between stated goals and observed behaviors.

Admissions Procedure

Anyone over the age of 17 is eligible to apply to the SDC; there is no age ceiling. Each perspective student goes through a six-step evaluation and planning process. First, the applicant meets informally with a staff member to obtain preliminary information about the Center and necessary application forms. He then is given an array of 10 standardized tests, for which he pays an assessment fee of $50. A formal individual interview follows and this contact is decisive for the applicant. The interview, conducted by two staff psychologists, is structured carefully to determine, among other qualities, the extent of the applicant's emotional pathology and the level of personal academic motivation. Mental retardation, extreme psychological disturbance, low level individual motivation to change, and illiteracy are the principal reasons for exclusion from the program. Test results are not used to provide admission criteria, inasmuch as scores frequently change dramatically in the course of the ten-week program. Such scores are helpful in the individualized program-planning process, once an applicant becomes a full-time student at the center.

If the applicant is not admitted to the SDC program, the interview is extended for the purpose of reporting test results and exploring alternative actions.

Program

The content of the SDC curriculum is continually

evaluated and modified by staff members and by students; new courses are developed and others are re-structured or dropped from the program's format, as needs arise. Currently an individualized, 40-hour-per-week program is designed for each student from the following content areas:

Communication: The SDC staff believes that the quality of one's encounter with the world depends upon the skill with which he communicates. Therefore, students are encouraged to discover new ways to open themselves to all their environment and to express freely their own thoughts and experiences. The communications program includes several sub-sections:

Reading Laboratory. In the reading laboratory the student works individually, at his own level, and he is encouraged to use self-pacing materials and instruments which increase reading speed, comprehension, and retention. The students also work as a group to complete exercises on the tachistoscope to increase their visual-perception span and vocabulary, and to learn the techniques of speed reading.

Writing Laboratory. The major emphasis in the writing laboratory is the differentiation of task and process. As the student is engaged in the task of writing a specific assignment, he is asked to observe himself in process and to note these observations on another paper. Many students who generally experience great difficulty with writing tasks become expressive when they are asked to explore the feelings that they encounter. Both forms of writing provide an opportunity for the student to master the basic skills of spelling, punctuation, syntax, and vocabulary. Programmed materials also are made available to help students who have specific problems in these areas.

Additionally, students engage in a variety of writing experiences to master the fundamentals of expository, narrative, descriptive, and creative writing forms, as well as of outlining, note taking, and the finer points of organization and critical thought. The experience culminates in the preparation of a formal research paper of collegiate quality.

Speech Laboratory. Any student with speech difficulties - lisp, foreign or regional dialect, stuttering, etc. may include individual speech therapy in his schedule. He is taught to recognize his speech problem and to engage in corrective exercises. Tape recorders and dictaphones are available for daily individual practice.

Drama Course. Under the guidance of a professional director, the student has the opportunity to discover within himself the underlying emotional content in classic literature, he learns new ways to memorize material, practices commitment to an idea, and sees himself perform under pressure through meaningful video-tape and group feedback.

Counseling. Both individual and group counseling are a major part of the SDC experience. Each student participates in small-group counseling sessions for one and

one-half hours, four days each week, in addition to one two-day weekend retreat. Although the format of these sessions is flexible, the focus primarily is on the psychological exploration of present experience, with an emphasis on immediate giving and receiving of feedback and communicative styles. Individual counseling is available on request.

Problem Solving: In this task-oriented seminar, the student learns problem-solving techniques, critical analytic processes, and decision-making skills. He evaluates his own methods and processes and learns new ways to work in groups, to define progress, to state assumptions, and to propose alternative solutions from which he can make effective decisions. He learns to use these skills on an individual basis through experiencing actual problems and dilemmas which are presented in the sessions and which must be solved in a limited amount of time.

Motivation: Research has demonstrated clearly that people who are motivated highly toward success are indeed more successful than people of comparable ability who are less motivated to succeed. Inasmuch as people can be taught to think and to behave as if they were high-achievement-oriented individuals, and inasmuch as this experience frequently changes the actual motivation and behavior in their daily lives, this seminar has a pivotal role in the SDC program.

Time Study: One of the characteristics of a person who is motivated highly to succeed is the ability to set realistic goals. This implies that the person has skill in assessing his own abilities and in managing his time efficiently. The time study seminar deals with the establishment and implementation of behavioral objectives within a time-oriented framework.

Mathematics: In an informal setting, the student has an opportunity to explore those areas of mathematics which previously he has avoided, and to practice a mathematical approach which involves minimal symbolization.

Psychology: This course is organized as a collegiate-level seminar and provides a testing ground for newly-developing skills. Students read, take notes, hold discussions, write examinations and, in conjunction with the writing laboratory, prepare a formal term paper. The course content also provides a cognitive structure to help the student understand his own experience as a low achiever and as a person in the process of change.

Student Population

The following summary information provides a composite profile of the average SDC student. These data were obtained from four groups of entering SDC students-22 men and 19 women, all of whom were tested during the first year of the Center's operation. Their average age was 20.2 years.

In four areas of scholastic achievement, the SDC students scored on the average at the lower 26th percentile of all students in reading, the lower 24th percentile in writing, the lower 37th percentile in listening, and the lower 25th percentile in mathematics. The mean level of intelligence was 112, which is in the bright-normal range of intellectual functioning.

In study habits, the SDC students scored on the average at the lower 18th percentile. However, in academic achievement motivation the SDC students scored on the average at the 52nd percentile. This latter finding probably reflects the positive attitudes which led the students to consider enrolling in the program.

The psychological tests indicate that SDC students, particularly the women, are generally anxious when they are taking examinations. As a group, they more often perceive events in their lives as unrelated to their own behavior and therefore beyond personal control, rather than perceive events as a consequence of their own actions and thereby as under personal control.

The composite personality profile indicates that generally the students are in the neurotic range of psychological functioning. They tend to be distrustful, overcritical, blunt, defiant, dependent, and rebellious toward authority. Frequently they see others as unpredictable, and feel misunderstood and alienated. Their social relationships often are shallow. They are poor at planning and concentration and are passive, indecisive, irresponsible, and show diminished energy level as well as minimal expectations. Frequently they are self pitying, self destrusting, self conscious, and appear to be non-conforming, bored, disillusioned, and impulsive.

Obviously these generalizations are summary pictures and do not describe any one student. Such a composite sketch merely provides a general overview of psychological variables, found, on the average, among a sizeable cluster of students who are identified, by themselves and by others, as academic low achievers. That the overall psychological picture of the entering SDC student is significantly discrepant from normative findings is an important indicator of the extent to which psychological pathology exists in the kind of student who achieves at a low level academically and on his own seeks professional intervention to modify the behavioral pattern he exhibits.

Racially, 72.9% of the first-year students were Caucasian, 21.4% were Black, 2.9% were Chicano, and 2.8% were Oriental.

Post-program College Placement

The following colleges and universities are currently being attended by graduates of the SDC:

California Institute of the Arts
California State College at Dominguez
California State College at Fullerton
Compton College California
El Camino College California
George Fox College Oregon
Immaculate Heart College California
Imperial Valley College California
Los Angeles City College
Los Angeles Valley College
Loyola University at Los Angeles
Mount St. Mary's College California
Northrup Institute of Technology, California
Orange Coast Junior College, California
California State College at Los Angeles
California State Polytechnic College at Pomona
California State Polytechnic College at San Luis Obispo
Pepperdine College California
San Fernando Valley State College, California
Santa Barbara City College California
Santa Monica City College California
Thunderbird College of International Relations Arizona
United States International University, California
University of California at San Diego
University of California at Santa Cruz
University of Southern California
West Los Angeles College

Of the 55 students who attended the SDC during the first one and one-half years of its operation, 34 (61.9%) were recommended for and placed in a collegiate program. Three others (5.5%) who received staff recommendations currently are not enrolled in college, after having chosen to work temporarily. Although 18 students (32.6%) were not recommended for college, eight of these students currently are enrolled in collegiate programs.

To date, followup information on grades has been received from 19 students (34.5%), as shown in Table I below:

Table I. Post-program collegiate-level performance of SDC graduates.

Grade Point Average	Students Recommended for college N	Students Not Recommended for college N
A	3	0
B	5	1
C	6	2
D	2	0
F	0	0

To date, 76.3% of all SDC graduates are attending a collegiate level program on a full-time basis. Of these 42 students, 53.9% have not yet received grades. Of those students who have received grades, 89.5% are known to have maintained a grade point average of C (2.00) or better, and 10.5% have not met this criterion.

The followup data indicate that the staff has been successful in developing a major learning program which is highly effective in speaking to the academic and emotional needs of many college-age low achievers.

Systems for Learning Assistance: Learners, Learning Facilitators, and Learning Centers

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INTRODUCTION

For the past eight years I have been evolving a professional raison d'etre to justify both my existence and function in higher education. I first attempted to articulate such a raison d'etre in 1963 with a paper that explored "The Responsibility of the College Reading Director Beyond the Clinic Doors" (8). Five years later, at the National Reading Conference, I redefined my position in a paper entitled: "The SR/SE Laboratory: A Systems Approach to Reading/Study Skills Counseling" (9) and, two WCRA Conferences ago in Phoenix, expanded the underlying rationale of that NRC paper with some reflections on a systems approach to reading/study skills services (7).

During this time, I transferred, or was transferred, from an English department teaching reading in a classroom to an Education department where help was offered to students in a reading clinic; from Education to Psychological Services as part of a Student Conference Center team where students were counseled in a private office; from Psychological Services to Student Personnel Services as director of a reading/study skills center.

During this same time, the professional literature of higher education reflected a similar shift in emphasis from reading and study/skills classroom instruction to services with names like Education Development Center (14), Student Development Center (20), Individual Learning Center (16), and Learning Laboratory (2).

In this paper, I want to share with you some of the sources and resources that have stimulated me to expand my role from a reading/study skills instructor to that of a learning assistance program designer and learning facilitator.

LEARNING ASSISTANCE

Let's examine first the phrase "learning assistance." Although this phrase is not one that has been used previously in reading/study skills literature, I submit that it is a most appropriate phrase to describe what we can do for students. "Learning Assistance" has evolved from and can encompass the following descriptors that are so familiar in our professional literature: remedial reading, corrective reading, developmental reading, power or speed reading, study skills, reading/study skills, and academic skills. It includes also the educational functions (pedagogical and psychological) inherent in such terms as improvement, remediation, development, instruction, and counseling, as they are performed in places variously described as a class, clinic, laboratory, or center.

Learning assistance also includes the world of the learner, the environment in which and with which he must cope to remain in college and to graduate from college. This learning environment is made up of the learner, his professors, other students, courses of study, administrative procedures and regulations, as well as locales such as classrooms, residence areas, and the library. It does not exclude the inner world of personal problems that impinge upon and affect an individual's attitude toward learning.

Learning assistance is concerned with basic educational skills and attitudes that Ford Foundation President McGeorge Bundy (4) calls "...the most important product of any learning process.....learning to keep on learning." It is concerned with what Ralph Gerard of UC Irvine (12) once described as "....another problem of acquiring learning skills, which is not merely learning, but learning to learn." It is also concerned with what Dubin and Taveggia (11) have suggested as a major contribution of a college education: "....to develop the habits of study, which are, or may be, the preconditions of learning"--a suggestion offered after they had analyzed data in ninety-one previously published studies of college teaching technologies from which they concluded that "...there is no measurable difference among truly distinctive methods of college instruction when evaluated by student performance on final examinations."

Learning assistance differs from content instruction in its emphasis, not on facts and information, but rather on the learning process and on the skills and attitudes of the individual learner. These learning assistance skills and attitudes, listed in the chart below, go far beyond the ordinary concerns of most college reading improvement programs yet are the skills and attitudes many college students need to develop in order to achieve academic success.

LEARNING ASSISTANCE SKILLS AND ATTITUDES*

1.0 Study Management

1.1 Time Management
1.2 Task Organization
1.3 Study Environment

2.0 Major Course Related Skills

2.1 Study-reading
2.2 Listening/Notemaking
2.3 Examination Techniques
2.4 Writing Assignments

3.0 Auxiliary Course Skills

3.1 Library Research
3.2 Vocabulary
3.3 Spelling
3.4 Writing
3.5 Speaking
3.6 Reading Skills, (beginning)
3.7 Computation
3.8 Handwriting/Typing

4.0 Attitudes, Interests, Habits

4.1 School Attitudes & Motivation
4.2 Careers
4.3 Concentration
4.4 Memory
4.5 Reading Habits & Skills

5.0 Physiological Aspects

5.1 General Health
5.2 Vision
5.3 Hearing

* This taxonomy for a systems-oriented learning assistance center is adapted from the SR/SE Personal Profile originally published in Survey of Reading/Study Efficiency: Manual for Instructors and Counselors. Chicago: Science Research Associates, Inc., 1968

A LEARNING ASSISTANCE CENTER

A Learning Assistance Center (LAC) is a facility where students (learners) come to effect change in their learning assistance skills and attitudes, particularly in areas of reading, writing, computation, and study skills. In addition to a main center, mini-LAC's could be located in the campus library, at EOP and Upward Bound facilities, in student residence halls, even in fraternity and sorority houses.

A LAC would operate most efficiently and effectively as part of a greater campus complex such as a Learning Center, Learning Resources Center, Instructional Materials Center, or Multi-media Center. Descriptions of operational functions for such campus complexes can be found in a recent volume of selected readings by Pearson and Butler (21).

Although the primary function of a LAC is to help students "beat the educational system" by getting higher grades; i.e., by learning more in less time with greater ease and confidence, it can also serve five other functions:

1) as a place where the learner gets tutorial help. The LAC is ideal for such activity since it has learner-oriented equipment, software, and personnel.
2) as a referral agency to other helping agencies such as medical, psychological, financial, and spiritual. With the LAC acting as a central point, students will not get lost in an administrative game of hide-and-seek. Instead, students will be diagnosed, referred, and monitored in a follow-up to insure that their needs are taken care of.
3) as a library of basic study aids in the content field. The LAC working in conjunction with academic departments could house drill materials, collateral textbooks, taped lectures, and course outlines.
4) as a training facility for paraprofessionals, peer counselors and tutors. As early as 1965, Brown, a pioneer in student-to-student counseling (3), argued for this use of peer counselors to combat the decreasing ratio of personnel and financial resources to student population.
5) as an information clearinghouse to update faculty in latest learning research and methodologies. The LAC could not offer the services that Vogel (25) describes in his model for an Innovation Diffusion Center where faculty actually see the innovative machine or materials. Instead, the Center could publish a newsletter that might serve not only to ameliorate the learning situation in campus class-rooms but also would effect good public relations between faculty and the Center.

SYSTEMS FOR LEARNING ASSISTANCE

Although there has been published in the literature a handful of articles (5) (10) with titles that seem to promise a reading/study skills or counseling service, we do not have yet a true operational system for learning assistance. Most reading/study skills programs skill operate in a vacuum as instructional extensions of English or Education departments, Psychological, or Counseling Services, or as an expedient, administrative innovation that services EOP, VEA, and other "minority" or "culturally disadvantaged" programs.

To serve the greatest number of students in a more effective and efficient way than is being done now, designers of reading/study skills programs should consider adapting elements of systems design to their programs. One basic element in any learner-oriented system is its emphasis on specified, observable attitudes and behaviors as recommended by Mager (19), and by the Johnsons (18).

To date, no one has really specified in the professional literature what observable attitudes and behaviors differentiate the efficient, effective college learner from one less efficient and effective. Nor has anyone specified what observable behavioral and attitudinal changes should occur in college students who complete reading/study skills programs.

The system, as Silvern (24) and Banathy (1) have pointed out, would also make explicit both an analysis and a synthesis of existing information, personnel, time, methodologies, and equipment to determine current interrelationships and seek new, more effective interrelationships. Some of these interrelationships involve both data sharing and coordinated learning assistance strategies among campus offices and departments such as the following: registrar, financial aids, placement, counseling, psychological services, chaplain, health officer, speech pathologist, course instructors, faculty advisors, and department heads. Finally, provisions must exist in a system for feedback, Weiner's "cybernetics" (26), both for individual behavioral and "attitudinal" reconstruction and for program evaluation and subsequent improvement. Such an analysis and synthesis combined with a feedback routine is being attempted by the author in a paper model of a Computer Mediated Counseling System in which the computer stores, correlates, and updates learner data from all these sources to develop a profile that can be used as a starting point for learning assistance.

The complexity and enormity of the tasks facing a systems designer can be grasped by referring to Mosford and Ryan's model of a counseling and guidance system (15) in which they outline ten functions for developing generalized models of counseling and guidance programs:

1) study real-life environment; 2) define problem situation; 3) establish project; 4) design counseling/guidance program prototype; 5) simulate to test program prototype; 6) pilot-test model; 7) introduce system; 8) operate system; 9) evaluate system; and 10) eliminate system.

Other design characteristics of a systems approach to learning assistance that must be considered are the following: 1) availability of learner options, 2) modularity of space and materials, 3) mathemagenic activity, and 4) openness to change.

Learner Options. The learner must have available instructional options that include lectures, in person, on audio or EVR cassettes; learning material such as books, recordings, films, programmed instruction, and computer-assisted instruction; learner groupings ranging from one as in auto-instruction, to pairs either of learner and counselor or learner and peer learner, to small groups for encounters and discussion or large audiences for dynamic presentations and demonstrations. Learner options include choices of time patterns and even of actual learning times.

Modularity. The era of the single textbook, workbook, instructional approach or program for all learners is past. Designers of learning systems must think in space modules and learning units so that the learner has choices from among different options. Thus, the designer of a learning facility provides area, furniture, and equipment for individual study, for tutorial pairings, for small group instruction and even for large audience demonstrations and presentations with the possibility that all may be occurring at the same time in the same basic facility. Designers must also realize that commercially prepared materials, such as college reading and study skills manuals, do not provide sufficient practice exercises unless individual manuals are literally torn apart and reassembled to take their place as part of a collection of self-learning materials. Such a collection would include cassettes, film strips, slide programs, and programmed instruction booklets in addition to modular workbook materials. Provision for this modularity is included in the author's SR/SE Systems Approach where the learner can opt to read, to do, to view, to listen, to test, or to confer from over 140 self-instructional modules listed in the SR/SE Student Personal Program Guide (6).

Mathemagenic Activity. Rothkopf (22) invented the term "mathemagenic behavior" to describe learner responses that give birth to learning. These learner responses are almost always overt behaviors. Thus a learner speaks, writes, or interacts with his learning material to promote learning.

James as early as 1899 in one of his famous Talks to Teachers on Psychology (17) reminded teachers of "...the great maxim which the teacher ought never to forget" that in learning there is "No reception without reaction, no impression without correlative expression." Designers of learning programs must insure that the learner constantly reacts and responds to his instructional materials. Whenever this reactivity or responsiveness is not built into an instructional module, the designer modifies the module to include it. Learner participation and activity can make the kind of difference that is suggested by the wording of the following ancient Chinese proverb:

"I Hear and I Forget;
I See and I Remember;
I Do and I Understand."

Openness to Change. Above all, a designer of learning systems must be open to change. He must maintain his currency by perusing professional journals, bulletins, newsletters, research reports, and fugitive documents as well as by actively participating in professional associations. He must constantly experience new materials and equipment, experiment with new learning methods, and exchange ideas with his colleagues. He must maintain his relevancy by dialoguing with his learners, using their criticisms to modify existing materials, facilities, and programs.

CONCLUSION

What I have described as a Learning Assistance Center, developed as a system with its concomitant characteristics, and functions, does not yet exist. It is slowly evolving out of what the literature describes as our reading centers, study skills centers, learning centers, educational development centers, instructional materials or resources centers, and innovative diffusion centers. Its evolution must be guided by professionals like ourselves who are genuinely interested in people-centered learning environments yet have a knowledge of systems design and instructional technology.

Robert Havens writing in "Technology in Guidance," a special issue of The Personnel and Guidance Journal (13), stresses the role that we, as counselors and personnel workers, should assume in meeting the educational challenges of technological innovation. He warns us that

> "...every one in the counseling and personnel field should be familiar with the rapidly developing technologies whether computers, system analysis, retrieval systems, or multimedia techniques. Counselors must know how to communicate with the technological specialist because technology will come to guidance. It must come.

We need it. The important question is who will decide what it will do for people and to people. We must determine, in consultation with technologists what programmatic applications technology will have in guidance. We must not let the technologists define our roles."

Havens' emphasis on "people" should remind us that any systems approach to learning assistance only uses instructional hardware and data processing computers to help the learner. Shure (23) sums up this human concern when he described New York Institute of Technology's Project Ultra, an instructional system at the college level designed to help dropouts and culturally deprived students, as "...a social activity involving people, ideas, methods, machines, communications, and various interacting systems. But always it comes back to people."

A Learning Assistance Center will be any place where learners, learner data, and learning facilitators are interwoven into a sequential, cybernetic, individualized, people-oriented system to service all students (learners) and faculty (learning facilitators) of any institution for whom LEARNING by its students is important.

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Reading/Study Skills in a Two-Year College

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Introduction. Marymount College is a fully credited, private, co-educational, two-year Catholic College situated on the bluffs of the Palos Verdes Peninsula, California. Although only 30 miles from the heart of downtown Los Angeles, this suburban college rests on green rolling hills, overlooks the Pacific Ocean, and provides a pastoral atmosphere ideally suited for study. Marymount is primarily a residential college situated in an upper-middle class community; tuition, fees, and room and board exceed $3,000 a year. Except for some of the commuting students, Marymount attracts low-motivated students with poor high school grades and low S.A.T. scores--affluent students who are unable to gain admission to four-year institutions. Foreign students comprise approximately 10% of the student body. They come to Marymount to improve their English and to earn enough credits to transfer to a four-year institution.

Although Marymount is private, parochial, and expensive, it adheres to an open enrollment policy and is the only Catholic, residential, co-educational college in California. And it makes an honest attempt to repair skill deficiencies of 142 full time and 108 extension students who aspire to a college degree.

USOE Grant. In 1968, Marymount College, a four-year college, joined with Loyola on its Westchester campus. At this time, Frank L. Christ (1), Director of Loyola's Reading/Study Skills Center, envisioned a developmental learning laboratory for both Marymount/Westchester and Marymount/Palos Verdes. In 1969, as a result of a USOE grant under the Higher Education Act of 1965, Marymount/Palos Verdes was able to initiate a full-time Reading/Study Skills program which was modeled after Loyola's.

Physical Facility and Materials. The Reading/Study Skills Center is located adjacent to the library in the

administration building. This 50' by 22' room is divided by a permanent partition into two main areas; the lecture/projection room and the laboratory. The lecture area contains chalkboards, a day-light screen, a lectern, and audio-visual cart and working spaces for twenty-five students. The larger area, the laboratory, houses 16 student study carrels, the materials center, learning programs, and the audio-visual equipment, the director's desk, and all files and storage space.

The materials center contains textbooks, workbooks, and programmed instruction in the five major areas of the study skills system originally designed by Frank Christ and described in the Manual for Instructors and Counselors of the Survey of Reading/Study Efficiency (cf. Appendix: SR/SE Systems Materials). Each area is given a different color to facilitate the division and use of the materials. On the cover of each book is a listing, color coded, of the assignments to read or to do within that book. Before each assigned reading, inserted in the book, is the instruction: "Keep in mind that you will respond to this material by writing in your Student Response Log." At the end of each assignment, the instruction reads, "Don't forget to respond to this material by writing in your Student Response Log." The student must make some kind of written response to each reading or exercise. His Log Book is divided into the same five areas as are contained in the Materials Center. By keeping a record of written responses, the student and director and/or peer counselor may communicate by means of silent dialogue, a written reaction or suggestion to the student's response. At times, the director or counselor may feel that a conference is needed and would then respond orally.

Peer Counseling. The peer counselor plays a very important role in the study skills center. Each counselor has been chosen because he fulfills the following qualifications: 1) has gone through the Study Skills (Psychology 1) course; 2) is convinced that the Study Skills program is beneficial; 3) wants to help fellow students and empathizes with their problems; 4) has been instructed in the use of the Manual for Instructors and Counselors of the Survey of Reading/Study Efficiency; 5) needs money.

The counselor-student ratio is 1-10. There is a great deal of interaction between students and counselors. First of all, the counselor is in the study skills class with his students. He constantly checks activities and confers with him. At the same time, the counselor is reporting his student's attitudes and progress or problems with the director. Together, they constantly monitor the student's program. At times, the director reacts directly with the student; at other times, he communicates through the counselor.

Peer counselors also act as tutors and are available at assigned times in the Study Skills Center or at the dor-

mitory desk. All students at Marymount, enrolled or not in the Study Skills course, are entitled to help through the Center or tutors. The peer counselor makes every attempt to understand his student's academic problems and to find solutions. Probably no one is more thrilled than the peer counselor when he finds that the student has done well in a subject that was previously a source of failure. Frequently the peer counselor and student share the same academic classes. This association gives the peer counselor a broader first-hand knowledge of the student's performance. This is an advantage that the peer counselor has over the director in perceiving the full scope of the student's needs.

Programs of the Center. The Reading/Study Skills Center has been in full operation for the past two years. The only summer school class offered at Marymount, Palos Verdes, is the Pre-College Study Skills Program in August. This program is modeled after the Loyola University of Los Angeles program described in a recent National Reading Conference Yearbook (3).

During the Fall Semester, 1969, the Center ran four reading/study skills classes required of all incoming freshmen and available as an elective to all other Marymount Students. In the Spring, the Center offered two sections of Reading/Study Skills, one section of Language and Study Techniques for Foreign Students, and a course in Bibliography. Again in Fall, 1970, the Center ran four sections of Reading/Study Skills, one section of Language and Study Techniques for Foreign Students, and one section of Study Skills Counseling.

Course titles and descriptions of the Center offerings as described in the college catalogue are presented below:

1. Orientation to Study Techniques (Psychology 1).
   All incoming freshmen are required to enroll in this one-semester laboratory course which meets for two hours twice a week and carries two credits.
2. Language and Study Techniques (English 50).
   This is designed for foreign students who need facility in oral and written expression. This course carries four credits.
3. Study Skills Counseling (Psychology 2).
   An open laboratory available to any student needing academic counseling or tutoring. No credit.
4. Pre-College Program.
   During August, Marymount offers an intensive and rigorous pre-college Study Skills program for high school students, mainly high school graduates. It runs for four weeks, five days a week, three hours a day and ends just about ten days before the student begins his college career.
5. Bibliography.
   A one-credit course designed to develop basic research techniques, to introduce specific reference

tools, and to give practice in report writing.

Diagnosis and Prescription. Upon entering the Center, each student is quickly initiated into the systems approach to reading and study skills when he takes the Survey of Reading/Study Efficiency (SR/SE), a basic diagnostic tool, which determines the advancement of these skills. As soon as he finishes the survey, he opens his Personal Program Guide which is part of the survey; and on the back, through a carbon print, he can count the number and seriousness of his skill problems. Feedback is immediate; the student can visually see a reflection of his individual study problems.

Five major areas and their sub-divisions are evaluated in the Personal Program Guide:

I. Study Management
   - A. Scheduling
   - B. Personal Aspects
   - C. Task Orientation
   - D. Study Environment

II. Major Course-Related Skills
   - A. Study Reading
   - B. Marking and Underlining
   - C. Responsive Listening Notemaking
   - D. Classroom Tests

III. Auxiliary Course Skills
   - A. Library Research
   - B. Vocabulary and Spelling/Dictionary
   - C. Writing Skills/Grammar and Mechanics

IV. Attitudes, Interests and Habits
   - A. Reading Habits and Interest
   - B. Concentration and Memory
   - C. School Attitudes and Motivation

V. Physiological Aspects
   - A. General Health
   - B. Vision
   - C. Act of Reading

The survey is then analyzed by computer to provide the student with a printout which specifically states his problem. A portion of a student printout is reproduced below:

FRESHMAN
ARTS AND SCIENCE
STUDENT NO 3922

SR/SE PROFILE

STUDY MANAGEMENT

SCHEDULING

** 111 DO NOT HAVE A REGULAR WRITTEN STUDY SCHEDULE THAT I ATTEMPT TO FOLLOW
** 7711 DO NOT STUDY 1 1/2 TO 2 HOURS FOR EVERY CLASS LECTURE HOUR

PERSONAL ASPECT

*(70)I AM DISSATISFIED WITH STUDY RESULTS IN RELATION TO TIME I SPEND STUDYING

THESE ARE YOUR PROBLEMS ACCORDING TO YOUR SR/SE RESPONSES

MAJOR COURSE RELATED SKILLS

STUDY READING

*(7)I RARELY USE A RECOMMENDED METHOD TO STUDY TEXTBOOK MATERIAL

LISTENING/NOTEMAKING

*(17)I RARELY EDIT AND SUMMARIZE MY NOTES SOON AFTER A LECTURE
*(19)I DO NOT DISCUSS MY NOTES OR OUTSIDE READING WITH EACH OF MY INSTRUCTORS
*(92)I DO NOT THINK THAT MY NOTEMAKING IS ADEQUATE FOR MY NEEDS

CLASSROOM TESTS

*(14)I HAVE NOT DEVELOPED A PRE-EXAM STUDY ROUTINE

THESE ARE YOUR PROBLEMS ACCORDING TO YOUR SR/SE RESPONSES

AUXILIARY COURSE SKILLS

LIBRARY RESEARCH

*(73)I AM NOT REALLY FAMILIAR WITH MY LIBRARY FACILITIES

GENERAL VOCABULARY

*(94)I MEET MANY WORDS IN MY DAILY READING THAT I DO NOT RECOGNIZE

WRITING

*(38)I RARELY OUTLINE THEMES OR OTHER CLASS ASSIGNMENTS

THESE ARE YOUR PROBLEMS ACCORDING TO YOUR SR/SE RESPONSES

ATTITUDES,INTERESTS,HABITS

COMPREHENSION AND RATE

*(99)I THINK I READ SLOWER THAN MOST OTHER STUDENTS

FLEXIBILITY

*(113)I READ ALL TYPES OF MATERIAL AT ABOUT THE SAME RATE

SCHOOL ATTITUDE

*(83)I FEEL THAT I NEED TO TALK TO SOMEONE ABOUT MY SCHOOL PROBLEMS

THESE ARE YOUR PROBLEMS ACCORDING TO YOUR SR/SE RESPONSES

PHYSIOLOGICAL ASPECTS

VISION

APPARENTLY YOU DO NOT WEAR GLASSES

*(139)I FREQUENTLY MISREAD O FOR B OR SAW FOR WAS
*(143)I AM UNABLE TO READ FOR 2 TO 3 HOURS WITHOUT BEING VISUALLY TIRED

ACT OF READING

*(70)I USUALLY READ WORD BY WORD OR SYLLABLE BY SYLLABLE

THESE ARE YOUR PROBLEMS ACCORDING TO YOUR SR/SE RESPONSES

THE STATEMENTS DESCRIBING YOUR READING/STUDY EFFICIENCY HAVE BEEN PRINTED TO HELP YOU BEGIN YOUR PERSONAL PLAN FOR READING AND STUDY IMPROVEMENT. SEE YOUR COUNSELOR FOR INSTRUCTIONS IN USING THE SR/SE PERSONAL PROGRAM GUIDE

At this point the student must react to the printout by writing an analysis of his feelings about his problems and a statement of his personal expectations in his SR/SE Systems Student Response Log.

During the initial interview with a peer counselor, each student discusses his reactions to the printout. Together with the peer counselor he decides on action-type recommendations based on his individual needs. The student at this point must make a commitment to change his unsatisfactory behavior and to substitute more efficient and rewarding behavior. For each problem area, the counselor directs the student to one or more of the system's five recommendations:

1. To Read - includes a wide selection of textbooks and manuals. The SR/SE Resource Book has an excellent collection of excerpts of some of the best study skills writing.
2. To Do - a multitude of excercises and activities including workbooks, programmed instruction, and tapes. The Eleven-Day Program in Personal Reading Efficiency is an audio-workbook program that helps students break through the physiological and psychological barriers that inhibit their reading at optimum rates.
3. To View - includes film strips, sound films, charts, transparencies, slides, and models.
4. To Confer - involves the director and peer counselors, and referrals to health center, psychologist, dean, academic advisors, faculty members, and spiritual counselor.
5. To Test - includes formal and informal pre and post test. Attitude and behavior changes are continually reported and discussed.

After each student has met with his counselor and discussed his personal study skill problem areas, he is ready to join in with the class for group activities in those skills that lend themselves easily to a group situation. In the group discussion, reactions, and opinions are highly encouraged. Each activity begins with feedback of feeling about the previous day's class activity. Each activity ends with an oral or written overt response that is discussed among the class members. Activities that are group-oriented include the following: study-reading, time management, preparing for and taking examinations, listening/notemaking, and reading rate and flexibility.

Rationale of the Center. In designing the Reading Study Skills Center, the following principles as outlined by Christ, the original designer of the SR/SE System (2), were carefully considered:

1. learning begins where the student is,
2. learning must be meaningful and goal-oriented
3. learning is not always easy nor is it always fun,

4. students do learn from each other,
5. diagnosis, referral and follow-up are synonymous with counseling.

The Center attempts to capitalize on these principles and provide the most conducive learning situation for each individual. Marymount students come to the Center with various backgrounds and various stages in the development of study skills. The program is highly individualized to meet the needs of each student. The student must be aware of the necessity and reasons for modifying his behavior and developing new study habits. He must also have the facility to immediately check his response or new behavior to learn if he is correct or incorrect. He does this by comparing his answers with the answer sheet after each exercise. Every attempt is made to have each student's response immediately reinforced.

Students sometimes decide that changing behavior and practicing new skills can be boring and tiresome. However when the intended outcome is achieved, they support the practicing of new skills.

A major emphasis of the Center's program is peer involvement. Students like to listen and respond to the opinions and ideas of their fellow classmates. Students begin each class activity with feedback from the previous activity and cap each activity with some kind of oral or written response, which is then discussed by the group.

Conclusion. It is difficult to measure the real problems and successes of each student. Since there is a small population at Marymount, direct communication with students, advisors, instructors, and counselors is possible and easily accomplished. When the student has a problem in a certain course, the director with the student's approval immediately contacts the instructor for that class and discusses the student, the problem, and possible solutions. On the other hand, instructors and advisors can and do contact the director of the SR/SE Center to discuss a student. This referral system is very informal, immediate and effective.

As a more formal measure of achievement, the director meets with each student individually and discusses his midterm grades which are issued by the registrar's office. Together they decide what is happening with the student and where he needs to go. Often this is the point when the student becomes motivated, sees a realistic goal, and makes a definite commitment to change. It is also at this time that the Center sets up a tutoring class. Until then, tutoring is by request, individually directed by peer counselors, available at various hours during the week.

At Marymount, students, faculty, and counselors are interwoven into a systems-oriented but people-oriented program that has attempted in the two years of its federally-funded existence to help students meet the academic challenge.

Appendix: SR/SE Systems Materials
(Abridged list)

Adler, Mortimer J. How to Read a Book. New York: Simon and Schuster, 1940.

Blumenthal, Joseph C. English 2600, English 3200. New York: Harcourt, Brace & World, 1962.

Butler, John H., and Theresa J. Jacoby, Higher Grades Through Better Notes. Palo Alto, Calif.: Fearon, 1965.

Brown, James I., Programmed Vocabulary, New York: Appleton-Century-Crofts, 1964.

Chapman, Elwood N. So You're a College Freshman. Chicago: Science Research Associates, 1967.

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Davis, Nancy. Vocabulary Improvement: A Program for Self-Instruction. New York: McGraw-Hill, 1967.

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Herber, Harold. Success With Words. New York: Scholastic Book Services, 1964.

Hook, J.N. Testmanship: Seven Ways to Raise Your Examination Grades. New York: Barnes & Noble, 1967.

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Mace, C.A., Psychology of Study. Baltimore: Penguin, 1962.

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Pauk, Walter. How to Study in College, Boston: Houghton - Mifflin, 1962.

Pearlman, Daniel, and Paula Pearlman. Guide to Rapid Revision. New York: Odyssey Press, 1965.

Robinson, Francis P. Effective Reading. New York: Harper & Row, 1962.
Sack, Allan and Jack Yourman. 100 Passages to Develop Reading Comprehension. New York: College Skills Center, 1965.
Shefter, Harry. Faster Reading Self-Taught. New York: Washington Square Press, 1960.
----. Guide to Better Composition. New York: Washington Square Press, 1960.
----. Short Cuts to Effective English. New York: Washington Square Press, 1955.
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Smith, Donald P. (ed.). Learning to Learn. New York: Harcourt, Brace & World, 1961.
Smith, Genevieve. Spelling by Principles. New York: Appleton-Century-Crofts.
Strunk, William, and E.B. White. The Elements of Style. New York: Macmillan, 1959.
Taylor, Stanford E., and others. Word Clues. Huntington, N. Y.: Educational Development Laboratories, 1961.
Voeks, Virginia. On Becoming an Educated Person (2nd ed.). Philadephia: Saunders, 1964.
Weinland, James D. How to Improve Your Memory. New York: Barnes & Noble, 1957.
Yaggy, Elinor. How to Write Your Term Paper. San Francisco: Chandler, 1958.

N.B. A more comprehensive list of books, kits, tests, and AV materials can be found in THE MANUAL FOR INSTRUCTORS AND COUNSELORS OF THE SURVEY OF READING/STUDY EFFICIENCY (Chicago: Science Research Associates, Inc., 1968)

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Effect of Media and Publishing in the Learning Process

Carroll F. Edwards
John Sutherland Productions

Perspective

According to the lead-in copy written by Marshall McLuhan's paperback edition of Understanding Media: The Extension of Man, McLuhan thinks:

> ...the electronic media are subtly and constantly altering our perceptual senses. The serial logic of print is fading out before the intuitive 'mosiac' of instantaneous communications. Books 'contain', TV 'involves'. The new vision is mythic, tribal, decentralized. Man now lives in a global-sized village, and is returning to the values and perceptions of a preliterate culture. (3)

Is there any evidence to suggest that the man identified as the "oracle of the electric age" by Life may be right in his prognosis of society's de-emphasis on the value of the printed word? Roper Research Associates summarized a seven-year study of the American public's attitude toward television with the following: (7, p.1)

> "Supposing that you could continue to have only one of the following -- radio, television, newspapers, or magazines -- which one of the four would you most want to keep?"

Most Want to Keep	1959 %	1961 %	1963 %	1964 %	1967 %
Television	42	42	44	49	53
Newspapers	32	28	28	27	26
Radio	19	22	19	15	14
Magazines	4	4	5	5	3
Don't Know or No Answer	3	4	4	4	4

Why does the printed word seem to be losing its appeal as a medium of communication? One clue is found in a survey from Fordham University which revealed that by the time of graduation the average high school student has spent 15,000 hours at home watching television, and only 10,800 hours attending school (4).

Perhaps college teachers and their allies, publishers and audio-visual producers, are assuming the role similar to that of the "high priests" described in Harold Benjamin's classic satire on curriculum development, The Saber-Tooth Curriculum. Remember--the high priests wouldn't let "Saber-tooth Tiger Hunting" be dropped from the course of study for the village children, in spite of the fact that a saber-tooth tiger had not been seen for decades. Why wouldn't they?--because of the inherent value to the learner of merely being exposed to a subject, the mastery of which had been so vital to the tribe's very survival.

Is the teaching of reading to college students analagous to the teaching of "Saber-Tooth Tiger Hunting?"

For decades the college teacher has been presenting information to students for them to consume, digest, and return for evaluation. His vehicles for presentation have primarily been the textbook, and his own dynamic classroom personality. And, for some teachers and students this has been a very effective process. Recently, however, the process has been severely challenged.

Higher education of yesterday was designed for the very bright, by the very bright. Today, higher education's purpose is changing. The recent U.S. Department of Health, Education and Welfare (HEW) Report on Higher Education observed, "The needs of society and the diversity of students now entering college require a fresh look at what 'going to college' means". The report was critical of "...over-emphasis on academic credentials, isolation of students and faculty from the world--a growing rigidity and uniformity of structure that makes higher education reflect less and less the interests of society". And, it concluded,"we need many alternate paths to an education". (6, p.iii)

Trends

Most college teachers are aware that today's freshmen bring to college different approaches to learning than their parents did. This is why catalog course descriptions are such terms as "understanding media" and "visual rhetoric". This is why closed circuit TV is becoming an "in thing". This is why the overhead projector, the super-eight projector, the learning carrel, the sound film strip projector, the audio-cassett recorder, etc., etc. are becoming standard tools on the college campus. And, this is why the successful textbooks currently being published are no longer designed like sterile encyclopedia and written like dissertations. (e.g. Montage) (8 & 2)

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Enlightened teachers, publishers, and audio-visual media organizations are increasingly showing a sensitivity to the characteristics of today's college student.

Implications

With the growing awareness of the potential of various media's contribution to the learning process, has come the legitimate concern of many educators that the basic purposes of education may become obscure. Time magazine recently focused on one aspect of this problem:

> Perhaps the greatest danger in the new wealth of reading materials is that it will tempt some schools to spend money on flashy hardware and neglect the job of teaching teachers how to use it effectively. (5, p. 60)

One group of educational psychologists has placed its oar in the busy waters of media innovation by demanding that "behavorial objectives" be prepared before the teacher dares to throw a switch, flip a transparency, or utter a word.

Another force to be reckoned with during this "renaissance of media" period is the "innovation for innovation's sake" advocate. This enthusiastic educator builds his case while ignoring the "Hawthorne Halo Effect" which frequently accompanies educational experimentation. He will statistically justify a radical instructional procedure which defies all the rational instincts of seasoned teachers.

A major challenge for today's educator is to use media effectively to reach his students, while not being taken in by the fads of instructional technology.

Conclusions

Today's college student arrives on campus having accumulated knowledge from many sources other than the printed page. During his two decades of life television has increasingly become the most important medium for mass communication. Yet, probably few educators will agree that the values of a "preliterate society" will take over during the remainder of the century.

With authorities of all hues calling for education to adjust to meet the changing demands of society, with students appropriately requesting that instruction be "relevant", the conscientious educator's task is not a simple one.

The effective teacher must decide:

1. What subject-matter is worth teaching.
2. What media will be most effective in helping students achieve specific learning objectives.
3. How to determine the effectiveness of the learning process.

Media available for presenting information to students have changed dramatically in the past few years, and the excellent teacher will continue to use them to create the most effective learning environment possible. In addition, the teacher must recognize that the message presented by the media is of far greater importance than the media itself. And, finally, the ultimate criterion to be used in determining the effectiveness of an educational program is whether or not the student learned.

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What the College Reading Specialists Should Know and Can Do About Vision

Roseleen B. Gaffney

Vision is a complicated psychophysiologic process which at the time of birth has not reached its full state of maturity. The development of normal visual function depends upon unimpaired use of the visual apparatus after birth. If vision is not developed during the first few months of life it may be permanently impaired. For this reason an infant with a suspected ocular defect or imbalance should be referred promptly to an opthalmologist for evaluation.

As the visual system develops, visual acuity improves until approximately the eighth year when full potential has been achieved.

Visual acuity is defined as the minimum separable, the smallest distance between two points that can be discerned. If the pattern to be resolved is complex, as in the case of reading letters, an interpretation of this pattern is necessary, which is not a function of the eye alone but a complex physiologic process termed minimum cognoscible. This is what is tested when we measure the visual acuity of an individual (1).

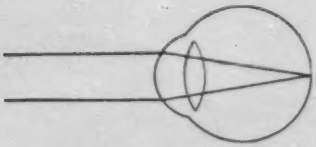
The normal eye can identify a letter that subtends a total of five minutes of arc with its components subtending one minute of arc. The vision in each eye is tested separately with and without glasses and expressed as a fraction. The numerator of this fraction denotes distance in feet at which the test is conducted, usually 20 feet, and the denominator the distance at which the smallest letters read subtend an angle of 5 minutes. Thus the vision of a normal eye is 20/20.

Factors Affecting Vision

A. Physiological

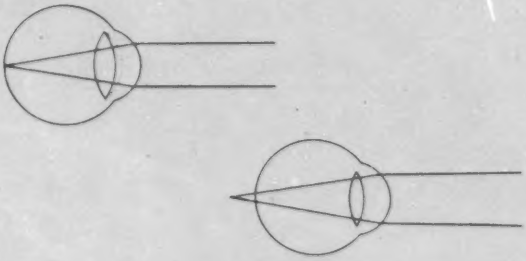
1. Refractive errors

In a normal sized eye, the image of an object 20 feet away automatically falls onto the retina, the sensory layer of the eye. This is termed an emmetropic eye.



The hyperopic eye. (A) With accommodation relaxed. (B) Effect of accommodation on parallel rays.

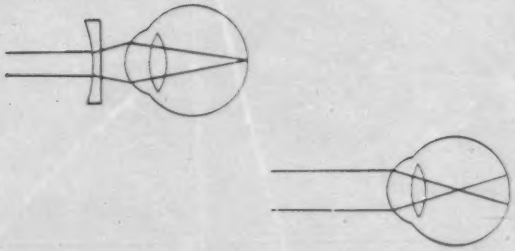
However, in the early years of life when the eye has not yet reached full growth, the image of an object 20 feet away falls behind the retina causing a blur. This is compensated for by the lens becoming more convex in an amount sufficient to bring the image into focus on the retina. The adjustment is termed accommodation. This type of eye is described as hyperopic or far sighted eye.



Refraction by normal emmetropic eye.

As growth continues, an eye may become slightly larger than normal so that the image from a distance of 20 feet falls in front of the retina. There is no compensatory mechanism available to move the image back onto the retina with the result that the object may not be seen at all or may be indistinct. This is termed a myopic or near sighted eye.

One other type of optical imbalance may occur either with or without hyperopic or myopia. It is an irregularity of the corneal curvature which causes a blurred image that cannot be compensated for by altering the distance from the object of regard. This is described as astigmatism.



Myopia. (A) Parallel rays cross in front of retina. (B) Effect of concave lens on parallel rays.

If indicated, the hyperopic eye can be corrected by convex spectacles. This is the only type of refractive error that may be partially or fully compensated for by the eye itself through accommodation. Glasses are not required in early life. The hyperopia may be partially or fully outgrown.

Myopic refractive errors require convex lenses while astigmatism can be corrected by cylindrical lenses that correct the blurred image on the retina. Neither of these refractive errors will be outgrown nor can they be altered by eye training.

2. Crystalline Lens

Accommodation is defined as a change in the convexity of the crystalline lens in order to bring an image of an object into focus. It occurs whenever an object is nearer than 20 feet. The closer the object, the greater the demand on the accommodative mechanism. In early life, the lens is quite flexible and so can accommodate over a wide range. The gradual loss of flexibility with age diminishes the range of accommodation. This loss is usually unnoticed until the mid-forty age bracket is reached and we begin to have difficulty reading fine print. At this point reading glasses are required.

Accommodation and convergence occur simultaneously. Accommodation is necessary to focus a near image on the retina. Convergence occurs in order to have the image fall on the macula of the eye, that portion of the retina capable of fine visual discrimination.

B. Pathological

1. Cataract

An opacity of the crystalline lens is termed a cataract. By this definition almost every adult has cataracts in the sense they have fine opacities of the

lenses. However, the term cataract is usually restricted to opacities of the lens that significantly interfere with vision. If the visual impairment becomes severe, the lens may be surgically removed. With optical correction to compensate for the lost lens, vision is regained.

Half of all blindness is preventable. The two main causes of preventable blindness are strabismus and glaucoma.

2. Strabismus

When the visual axes are improperly aligned and the disparity cannot be compensated for by fusion, the condition is termed strabismus. Fusion is defined as mental blending of two similar images forming a single image.

The potential for binocular vision just as in monocular vision is present at birth but dependent upon use and experience for development. If the two eyes cannot function as a coordinated team, diplopia or double vision results. Since diplopia is intolerable, one image may be suppressed. If the eyes are alternately suppressed, vision will be developed and maintained. In an infant, if the same eye is constantly deviated or turned, it will not develop full vision. In an older child who has already developed vision, a deterioration may occur. This type of visual loss is termed strabismus amblyopia and may be rehabilitated if the child is treated early. Since most strabismus occurs early in life when suppression to eliminate the diplopia easily occurs, people with strabismus generally do not see double. Adults do not lose vision due to strabismus acquired after maturity.

The many causes of strabismus vary from the simple need of spectacle glasses to diseases such as myasthenia gravis or intraocular tumors. It is for this reason that all persons with strabismus should undergo opthalmological examination to rule out other diseases.

If a person has one eye constantly turned and does not complain of diplopia, the strabismus should not effect reading ability. If a person is suspected of having reading difficulties due to poor eye coordination, he may try reading for a few hours with one eye covered. If no change occurs in symptoms, it is unlikely that they are related to poor coordination. If symptoms improve, consider referral for a detailed opthalmic evaluation.

At this point, a quotation from a seminar on dyslexia, consisting of leading opthalmologists from the United States and Canada (2) may be of interest to you:

> "(1) Not enough objective scientific evidence yet exists to prove that perceptual motor training of the visual system can significantly influence reading disability.
>
> (2) In coping with dyslexia, opthalmologists should be involved in an inter-

disciplinary approach, which ideally consists of an educator, opthalmologist, pediatrician, and psychologist with available consultation from a neurologist, psychiatrist, reading specialist, audiologist and social worker.

(3) Eye care should never be treated in isolation when the patient has been referred with a reading problem.

(4) The belief that eye dominance can be at the root of so profound and broad a human problem as reading and learning disability is both naive, simplistic, and unsupported by scientific data.

(5) Latent strabismus may be associated with a reading disability in certain individuals. This may be treated according to the doctor's own opthalmological principles, but it is significant to the learning problem only in improving reading "comfort or efficiency."

(6) Eye glasses, including bifocals, prescribed specifically for the treatment of dyslexia have not proven effective.

(7) Just how children with reading disabilities should be taught is a technical problem in educational science, which lies outside the competency of the medical profession

(8) Educational research is needed in the correction and prevention of reading disabilities.

(9) Children with reading disabilities, once diagnosed, should be removed from the milieu where accepted methods of teaching are practiced, in order to give them special instruction along totally different lines.

(10) The percentage of dyslexics within the community has been overestimated by some writers. Others have underestimated the magnitude of the problem. Regardless of the actual figure, reading disabilities among children are grave enough and sufficiently important to justify an official recognition.

(11) A national commission should be established to review research presently available and identify specific areas for further work in the scientific as well as the educational area.

3. Glaucoma

The other cause of preventable blindness is glaucoma. Glaucoma is present when the normal intraocular pressure exceeds physiologic limits. It is an insidious disease in that it painlessly destroys vision and can eventually cause total blindness if untreated. It can be detected easily by simple tests. However, these tests

can only be performed by a physician since the eye must be anesthetized. It can occur at any age but the incidence increases from age forty. Although the person with glaucoma must remain under medical care for life, this disease can be controlled by various types of medications so that normal vision can be maintained throughout life.

C. Pharmacological

The many drugs affecting vision directly include alcohol and LSD. In addition many other drugs may have side effects involving vision. This includes certain tranquilizers and seizure prevention medications.

D. Psychological

The intimate relationship between the eye and the mind has been well documented throughout history. However, the decision as to whether the eye is the cause of or the target area for psychological problems should be made only after evaluation by an opthalmologist in addition to consultation with a psychiatrist or psychologist.

This discussion has only touched lightly on some of the more important facts about vision. It is by no means complete. However, it is hoped they may be of some interest to you.

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A Comparison of the Reading Abilities of a Junior College Population and the Readability Levels of Their Texts

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In the summer of 1969 this writer conducted a study of readability of textbooks for three different courses at Columbia Junior College. In addition to the report of the readability levels for the various texts, suggestions were also made on how students could best cope with these texts in terms of the table of contents, the index, the glossary, the end-of-chapter questions, etc. As part of the report, suggestions were made on how the student could best study-read the text. While conducting the readability portion of the study, it soon became apparent that the majority of the texts being evaluated were beyond the reading abilities of many of the students for whom they were intended. Two of the three texts in one course, for example, were rated on the Dale-Chall formula at grade 16 or graduate level in difficulty. These texts were being used by students in a non-transfer terminal course in introductory biology. Even without testing the students for their reading ability, it would be logical to assume that the students would not be able to effectively deal with these textbooks and learn from them.

In order to determine whether in fact such discrepancies did exist and whether these discrepancies were college-wide, it was decided to conduct a more thorough study. Such a study would entail two factors: the assessment of the reading abilities of the students at the college, and the assessment of the readability levels of the texts and teacher-prepared materials for each class in the college. Because of contingencies not realized in the planning portion of the study, both of these factors had to be modified later in the project. Instead of testing the whole student population of the college, we had to settle for a representative sampling. And instead of conducting a readability analysis of all of the texts and teacher-prepared materials, only those texts and materials related to the classes tested were analyzed.

It should be made clear at the outset that this study was not conducted to provide definitive research data or to provide an example of how pure research should be carried out.

It was conducted to provide some answers to some vexing questions, to provide teaching colleagues with some information about one or two of the characteristics of their students, and to provide some information for the feeder high schools about the characteristics of their graduates. It was hoped, in addition, that teaching colleagues in other disciplines would learn about and begin to appreciate the significant relationship between the reading abilities of their students and the difficulty levels of the materials with which they were asked to deal. It was one of the aims of the study, in fact, to generate enough interest in this reading ability-readability relationship to conduct in-service workshops to teach instructors how to apply a readability formula when making textbook selections.

This study, then, is not research looking for an application; it is an application looking to answer some questions within a community college setting.

CHARACTERISTICS OF THE POPULATION

Columbia Junior College, as a college in the California Community College system, is an open-door institution. As such, the student body is representative of the general population of the area served and includes students whose academic aptitudes range from the lowest to the highest level on any scale. A primary concern of the institution as reflected in its philosophy and guiding principles is that the open door does not become a revolving door, but rather helps each student to achieve that level of success of which he is capable by carefully structuring the learning situation. In this setting, texts and the teacher become secondary in importance, while the structuring of the learning experience for each individual participant is the primary responsibility of the institution.

In its three years of operation, the instructional program of Columbia Junior College has been developed to place maximum emphasis on the involvement of a carefully structured series of learning experiences which will allow each individual participant to achieve progressively higher levels of learning in the selected area based on his own rate of learning. The instructional program is based on large group, small group, and individual study organization. Much emphasis is given to individualizing learning and to providing learning experiences through which students may progress at their own pace. Many of the materials used in the classes are teacher-prepared.

On the basis of three years experience in the development of such an instructional approach, it has become apparent that greater attention must be given to devising the means by which the student is assured the optimum opportunity to achieve success in his individual learning program. At least a part of that concerns the relative difficulty of the course materials in the student's individual learning program.

In a study conducted by Belden (1), the author states,

> If course materials are on a level above the reading skill of the students, frustration, anxiety and failure result. Without doubt, the relationship between the difficulty of material and the reading ability of the students present one of the most pressing problems for those who rely upon printed materials for learning experiences.

In view of this observation and in view of the fact that the instructional approach at Columbia Junior College still relies heavily on printed materials for learning experiences, it was decided to pursue the question presented earlier. That question restated is--to what extent, if at all, is there a difference between the reading abilities of students in selected classes and the readability difficulty of the texts used in those classes?

Early in the Winter Quarter, 1971, testing of selected classes was begun. The Diagnostic Reading Test, Form A (7) was given to a total of 359 students in 16 different classes. None of the students was tested more than once. Those students who had taken the test previously were excused from class for the testing period.

The results of this reading test are shown on Table I. This Table reveals that 35.9 percent of the population tested were reading at or above grade level 13. Those reading slightly below grade level or at grades 10, 11, and 12, constitute 33.5% of the population. 19.1% of the population were reading at a grade level of 7-8-9, or junior high school level. Those reading below the 7th grade level of ability comprise 11.4% of those tested. In other words, slightly over one-third of the tested group were reading at or above grade level, while a little less than two-thirds were reading below their grade level.

According to McClellan (6) who cites Halfter (4) and Hadley (3), these results are in line with other studies of a similar kind. And while it may be somewhat comforting to find that similar studies have revealed like results, it is truly disturbing to contemplate the seriousness of the fact that approximately two-thirds of a freshman class will have a crippling reading handicap.

At the same time that the testing was being conducted, assistants were being interviewed, selected, and trained to help conduct the readability analysis of the numerous texts using the Dale-Chall formula (2). Four assistants were finally selected and trained and began work in late January. Those assistants did the major portion of the sample taking, the counting of sentences in the samples, and the determining of unfamiliar words when compared to the Dale-Chall list of 3000 familiar words. The computational tasks, however, were completed by the investigation.

Table II shows that in a number of cases the required texts for the courses are somewhat inappropriate when compar-

ed with the average reading achievement of the class. Class B, for example, has three required texts, only one of which may be said to be appropriate for the entire class. The other two texts at grade levels 13-15 and 16, are, if we consider the class reading grade level of 11.1, probably not going to be of sufficient value to the students to learn from them at maximal levels. At least it can be said of the texts required for Class B that ONE of the texts is probably suitable even if two others are not. In those classes where only one text is used, however, and where that text is beyond the capabilities of the majority of the class members, the student is really handicapped. Such is the case in Class E. The corrected grade level of the text is 16, or graduate level, while the class reading grade level is 10.9. To expect that the majority of students will optimally learn from this text is indeed questionable. In courses using multiple texts and assuming that the grade level difficulty of at lease one or two of the texts is commensurate with the reading ability levels of the majority of the class, students would appear to stand a better chance to learn more and therefore succeed more. Class D, a U.S. History class, for instance, has four required texts. The class reading grade level is 11.4 and two of the required texts are in the 11-12 difficulty range. Unfortunately, these two texts are required collateral reading and do not have the weight of the other two texts which are the primary texts for the course. These other two texts have a corrected reading grade level of 13-15 and 16+ respectively. In some cases, then, the student does not have an advantage with courses using multiple texts.

Rather than looking only at the class reading grade level and comparing that to the difficulty level of the text or texts required, it may be useful to look at the actual reading ability range of a representative class. Class C, an Art History course, for example, has one required text with a graded difficulty level of 13-15. The class reading grade level is 11.5 and there are 30 students in the class. Of these thirty students, less than half (12) are reading at grade level while 8 more are reading at a level slightly below 10th grade reading ability. Eighteen of the thirty students in this class, in other words, will probably experience serious difficulty in learning from this text. In another instance, this time with an introductory sociology class of 25 students with a class reading grade level average of 10.9, the one required text has a corrected grade level of 16 or graduate level. Five of the twenty-five students are reading at their grade level, nine are reading at a level slightly below or at 12th grade reading ability level, while the remaining eleven students are reading below the tenth grade level. In view of the graded difficulty level of the text for this class, it would seem logical to assume that the majority of students in this class would find it difficult to learn from the printed material.

TABLE I
INITIAL READING GRADE PLACEMENT OF POPULATION

READING GRADE LEVEL	N	PERCENT OF POPULATION
Below 7th grade	41	11.4
7th to 8th grade	12	3.3
8th to 9th grade	40	11.1
9th to 10th grade	17	4.7
10th to 11th grade	29	8.1
11th to 12th grade	91	25.4
13th and above	129	35.9
Total	359	

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TABLE II
A COMPARISON OF THE AVERAGE READING ABILITY OF 16 CLASSES
AND THE CORRECTED GRADE LEVEL OF TEXTS FOR THOSE CLASSES

Class	No. Required Texts	N	Class Rd. Grade Level	Corrected Grade Level of Texts
A	5	46	11.7	1. 11-12 2. 13-15 3. 13-15 4. 11-12 5. 9-10

TABLE II (continued)

B	3	69	11.1	1. 16 2. 13-15 3. 11-12
C	1	30	11.5	1. 13-15
D	4	29	11.4	1. 11-12 2. 11-12 3. 13-15 4. 16
E	1	25	10.9	1. 16
F	2	22	12.2	1. 16 2. 13-15
G	1	30	11.4	1. 11-12
H	1	18	12.2	1. 16
I	3	20	10.6	1. 9-10 2. 9-10 3. 9-10
J	1	26	11.0	1. 16
K	1	17	11.7	1. 11-12
L	1	10	11.3	1. 11-12
M	1	13	11.1	1. 13-15
N	1	48	11.2	1. 11-12
O	1	37	9.9	1. 13-15
P	2	18	10.8	1. 11-12 2. 13-15

CONCLUSIONS AND RECOMMENDATIONS

Of the twenty-nine texts evaluated for the sixteen different classes, almost half of them, or 14, proved to be inappropriate for the learners if we say that a text should not be more than one grade level above the reading ability of the student who uses it. If, in addition, the results of this study are borne out by replication in other college settings, it would appear imperative that readability as a factor in textbook selection be championed throughout our colleges.

It may be argued, and correctly so, that the texts for a course in most colleges and universities are not the only materials used for instruction; but it is also true that texts and other written materials constitute the primary means of instruction for the learner. And while it is also true that many of our colleagues in other disciplines have expressed genuine concern about the reading abilities of their students, they have at the same time almost totally disregarded or have been ignorant of the importance of the difficulty levels of the materials they choose for their classes. It is incumbent upon the reading specialist, therefore, not only to provide evidence that such discrepancies do exist, but he must also be willing to make an effort to teach his colleagues how to employ the tools which measure readability.

It may be, however, that the Dale-Chall readability formula used in this study, or any other similar formula for that matter, does not adequately measure the kinds of factors which need to be measured in textbooks. It is therefore recommended that other kinds of devices or formulas be developed which would more adequately assess many more characteristics than are currently measured by extant readability formulas. A scale could be developed, for example, which would include in addition to readability levels such factors as the existence and usefulness of such author-publisher aids as indexes, glossaries, end-of-chapter questions, chapter summaries, etc. These factors when weighted and coupled with traditional readability levels might provide the untrained instructor with more adequate information for textbook selection.

The final responsibility for the choice of written materials for classroom use rests with the instructor, but publishers also have a major responsibility here. It is therefore recommended that all of us urge publishers to take into consideration the readability levels of texts when they approach specific markets. Publishers should also be urged to advertise the readability levels of specific texts and other materials in order to insure that unsuspecting or untrained instructors do not make an inappropriate selection. Some publishers and teaching colleagues may argue that readability formulas as they currently exist have serious limitations because they do not measure concept difficulty. This is generally true, but, as Martin (5) has said,

> Without some reliable measure of difficulty

those who need to be able to match reader ability and difficulty level can rely only on judgment. Trained judgment can be good, but there is general agreement, that even with its limitations, a good formula can be better.

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Clozing the Gap:
An Approach to Solving Reading Problems at San Jose City College

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The dilemma of why Johnny can't read is magnified over a thousand times each year at San Jose City College. A number of years ago this problem was recognized and steps were taken to remedy it. Basing their early program on the philosophy that there exists a tight correlation between reading and writing ability, the English Department established a tracking system which works as follows. All students who scored below 27 on the speed section of the Davis Reading Test, administered as part of the entrance battery, were placed in two compulsory English classes: English C, a remedial reading class, and English D, a remedial writing class. Upon successful completion of both classes, the student was then permitted to take English 92, an advanced remedial composition class and then the regular college freshman composition class, English 1A. Both English C and D were established as non-credit pass/fail courses which met three times a week in classes of 30. Regular English instructors taught both the C and D sections in spite of the fact that none have had any training in the teaching of reading. Emphasis in the reading sections was heaviest on speed and comprehension, and normally a speed and comprehension score was obtained during each class session. In addition to the Controlled Reader and reading pacers, various SRA kits and books were the foundations for this course. Unfortunately, the success of this approach was somewhat limited. Needs of individual students were subordinated to the focus on speed and comprehension, and many of the weaker students became frustrated and dropped the course.

Two years ago the idea of using para-professionals under the supervision of a reading specialist was proposed, and the present reading program began. San Jose City College has a combined day/evening enrollment of approximately 13,000 students. During the current school year our English C program will have served over 1200 students in sections of 15 to 33. With the exception of four sections taught in the evening by regularly credentialed instructors, the remaining sections have all been taught by para-professionals working under my

direct supervision. Each of our para-professionals possesses or is within 6 units of possessing an MA in English from San Jose State. None of them has had any formalized training in the teaching of reading. Prior to beginning work in our reading program, they have attended a series of seminars dealing with various aspects of reading diagnosis and instruction. In addition, we meet twice a month to discuss readings assigned in various texts purchased for this purpose, and we have for the last year been fortunate to have obtained the services of Dr. Miles A. Tinker as a consultant. As part of my assignment I am present in each section for ten to fifteen minutes, during which time I evaluate instruction, help individual students, and sometimes teach demonstration lessons. These evaluations are used during our frequent informal conferences as a basis for suggesting change or to give direction to future lesson planning. During the present semester we have four para-professionals involved in the program, each of whom has three sections of English C.

The speed section of the Davis Reading Test is still being used for placing students in the various English classes, as was noted earlier. However, we are currently involved in a study to determine a better way to place students as well as to test the validity of the assumption that reading and writing expertise is somehow related. Pending the results of this study we shall continue to use the Davis. Unfortunately, these scores reflect achievement in an area of dubious value for selection of students who are supposedly remedial readers, and the result is that we wind up with 30 students who are assigned to the same reading class but who in fact have widely varied skills and problems. In an effort to minimize this problem we have been using the Iowa Silent Reading Test as both a diagnostic aid and for pre-post test results to assess the effectiveness of our program. During the first two class sessions of the semester, the Iowa is administered. We take the results and then reassign students according to areas of greatest need as indicated by the scores. When there are three sections per hour, as we have during the Fall semester, we normally have one section which deals with word attack, including both syllabication and phonics (disguised as spelling), literal comprehension skills, and practice in reading such things as maps, charts and graphs, as well as basic study skills. The middle sections normally emphasize vocabulary development through the use of roots, prefixes and suffixes, interpretive comprehension, some rate training, and study skills. The top sections deal with developing flexible reading rates, critical reading skills as well as practice in all aspects of comprehension, and study skills. During the spring semester when our enrollment drops we normally have only two sections per hour. The division usually has the slower sections doing work on word attack, practical reading of maps, graphs, and charts, vocabulary development, study skills, and comprehension, while the faster sections deal with rate of reading, comprehension, critical reading skills,

study skills, and vocabulary development.

Because of the size of our sections, our class work is necessarily conducted in the form of group assignments. We are currently using Free to Read by Barman and Opportunity for Skillful Reading by Joffe as the basic texts. These texts are supplemented with a variety of other materials including SRA's Better Reading books, Witty's You Can Be A Better Reader, and the books which accompany the Controlled Reader, which we use to teach preview techniques as well as to give practice in reading for speed and comprehension. As far as mechanical equipment is concerned, we have a tachistoscope, which is used two or three times per semester in each section to demonstrate visual span concepts and to motivate the students to become more fluent readers. These machines are so popular that we allow students to check them out overnight and weekends to practice with at home.

Finally, we use clozure to strengthen vocabulary and comprehension in a most impressive manner as well as to involve the students in the learning process. Bormuth (3), Rankin(6), and others have conducted studies on the utility of clozure in evaluating comprehension. Bloomer (1), Heitzman (5), Roossinch (7), and Schneyer (8), have found that this procedure is valuable in teaching as well as diagnosis. Our utilization of clozure at City College has been as a teaching device rather than for diagnostic purposes. For this an instructor will select an article which he feels might be of interest to the class and systematically delete words, leaving in place of the words a blank of standardized length so the student will be unable to tell whether the word was long or short. Commonly we leave out every fifth or seventh word, but it is possible to vary this according to the nature of the material, the competencies of the students, and what we are attempting to teach them. For example, it works very successfully if you leave out parts of speech, such as every verb or adjective. We have also deleted numerical measures, as in recipes. The concept behind clozure is that if the student is familiar with a situation being described, he should, from his own experience as well as the context, be able to supply the missing words used by the author in the original text, or at least words which made sense within the context. We sometimes collect these exercises, which are normally duplicated and distributed to each student. However, our more common procedure is to wait until each student has completed his paper and then place him in a group of six or eight to discuss their word choices. Each group is told to come up with a polished copy consisting of the best choice for each blank as mutually decided by the entire group. In listening to these discussions we frequently hear a great deal of critical thinking being expressed, as well as discussion of such things as style, and tone, although these exact terms may not be used. Finally, after each group has completed a polished copy, the class reconvenes and each group tries to justify its choices when there is a difference. One of the obvious benefits of this

approach is that it permits each student to learn from his peers the shades of meaning various words can carry in specific context. The discussions which center around some of the word choices are frequently spirited and noisy as each student develops an awareness of the importance of knowing what each word means.

To illustrate how well this approach works, consider the following example. One of the para-professionals had been working with clozure quite frequently last semester, often once a week. Seeing that her students were becoming very proficient at supplying meaning from context, she passed out a copy of Carroll's "Jabberwocky" as a present. The immediate reaction from the class was silence and stoney faces. However, as the poem was read to them a few began to smile, and by the end all looked as though they had comprehended at least part of the poem. In the discussion which followed, it was amazing to listen to various students affix meanings to such words as slithy and vorpal, and even more impressive to find that they could identify these words according to function. This they were able to do because of Carroll's use of standardized English prefixes and suffixes. To top this off, one of the students composed a song entitled "Jabberwocky Man" which his rock group played at a concert in December. The potential of clozure as an instructional aid is both enormous and terribly exciting.

Turning now to results, we have what we feel are some fairly impressive gains using this approach. The typical English C student enrolled in the program during the Spring 1970 semester gained 1 year-9 months as measured by the overall score on the Iowa Silent Reading Test, using Advanced Form CM for the pre-test and Advanced Form DM for the post-test. In compiling these statistics, n=310 students. Difference in percentiles for each of the sub-scores is indicated in the following chart:

	Form CM	Form DM
Rate	31 %ile	62 %ile
Comprehension	20	41
Directed Reading	20	25
Poetry Comprehension	16	28
Vocabulary	13	21
Sentence Comprehension	9	19
Paragraph Comprehension	18	27
Use of the Index	19	31
Selection of Key Words	30	42
Overall Score	13	32
	Grade Level Score	
Overall Score	8.2	10.1

While we are pleased with these results, we feel that there are many things which we can do to strengthen our program. For example, we have a large number of Chicano students for whom English is a second language. None of us is adequately trained to deal with this problem in the most

efficient manner, so we lean on our Cooperative Learning Program which supplies us with student tutors. I try to work with the most severely handicapped readers on an individualized basis, which is seldom possible because of time. Our counseling department is working on the development of a study skills course which will be of enormous value to many of our students. Members of various departments, including history, cosmetology, and home economics, have asked for help in preparing materials and lessons for students who are having difficulty in reading assigned materials in those courses. Still, we are faced with a one-semester course which carries no credit and which most students pass because they do show significant improvement on the Iowa test. A student who begins the semester reading at the fifth grade level and finishes the course reading at the seventh grade level does not need to repeat the course. At this point we offer nothing else for him. We do have a separate speed reading course, but this is inappropriate for the type of students each semester who voluntarily repeat the course because they feel it has helped them, but we need something more. We obviously need a lab set-up in which we could deal with our most severely handicapped readers. Although we do reach large numbers of students each semester, we are painfully aware of our failure to adequately deal with the most severely handicapped in a more effective manner. We need to develop a sequence of courses so that it will be possible for a student to move from the sixth grade level of reading competency to the eighth or ninth or tenth if this be the potential for that individual. We need to consider assigning credit to these courses. We need to develop a more reliable and up-to-date testing instrument so that we might be more tuned in to the needs of each student.

In the meantime, we shall continue with our present program, making any modifications which seem necessary or desirable and which won't cost any money since we are faced with a very tight budget for the coming year. Looking back on these two years there is a tendency to feel smug because what we have now is so obviously superior to what existed on campus three or four years ago. Despite the fact that we have succeeded in clozing the gap during this time, we must seek other ways to come even closer to helping each of our students realize his potential.

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The Relationship of Affective Changes to Cognitive Skills Development

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The purpose of this paper is to stimulate greater interest in the affective domain of educational objectives on the part of learning skills specialists who may still think of their work primarily as a mission to develop cognitive functions. Implied by this purpose is the conviction that teachers who are working to develop the academic skills of students should begin to think of themselves as facilitating counselors who can bring about significant affective changes in their students' attitudes toward learning and being. Also implicit in the thinking of this paper is an invitation to teachers to embark on a course of developing more authentically human relationships with students which would be a source of mutual fulfillment and personal growth. Without mutually satisfying relationships between teachers and students, not very much lasting learning can occur. It is important to consider the needs of the whole person, the total self of the student. It is also important for teachers to examine their own needs; these must also be met in the classroom process for a teacher to feel and be effective. Inherent in this point of view is the premise that in helping students, one is also experiencing personal growth and helping oneself. Students' reactions and explorations are a bounteous source for the teacher's own self-actualization, and should be viewed with respect.

By now it is possible that some readers have already turned to another article, perhaps muttering, "What am I supposed to do, turn all my classes into sensitivity groups?" But it could be argued that the whole art of teaching is sensitivity training of one kind or another: helping students to get in touch with their own thoughts and feelings; enabling children and young adults to react to others' ideas and experiences; facilitating discovery and organization of values; encouraging young people to seek knowledge that is relevant to living fully; and developing their ability to express their discoveries in coherent ways so that others

will understand what they intend to communicate. Greater human sensitivity in all of learning, living, and relating to others is the new threshold in education. It is important to accept this and examine our teaching and counseling approaches with concern and a commitment to change; for change is needed. In fact, change will evermore become a way of life, and we must help our students prepare for this in the learning experiences they have with us now. That is why we need to say that the purpose of education should be to free the student for his self-education, a self-education which will have to continue all of his life.

George Brown (2) notes that our schools have failed miserably in developing intellects precisely because they have paid too much attention to the intellect alone, largely ignoring the development of other human qualities that give learning its meaning. Decosmo (5, p.1) says, "We 'professionals' have succeeded rather well in 'carving up' the student so that we can all have a piece of him. Though an entente', the instructional and student personnel staffs have split him into his cognitive and non-cognitive halves. Teachers have laid claim to his cognitive self and proceed to try and 'teach' him new skills and intellectual competencies. The student personnel staff has purported to help him in his search for identity and intimacy or whatever psychosocial crisis faces him at his particular life stage. This, in itself, would be serious enough, but we have taken it a step further. Each group views what it does as the most important contribution and forgets that we ought to be working together to integrate both aspects in order to assist the student in his total development. Further, we view the 'other side' as competition for the student and forget that we can support each other's efforts on behalf of the student."

It is time to ask that schools be responsible for a more extensive and subtle education of the entire person: mind plus emotions, body awareness (8), and even spirit. Most philosophers of the future agree that the man of 2000 A.D. or sooner, will need to be a more fully sensate man as well as an intellectual man. He will have to be this complete man in order to cope with his ever changing culture; and beyond just coping, he will have a deep need to relate more authentically to other persons in his culture and to make contributions to them. This concept, now admittedly controversial among educators who are not future-oriented has many implications for counseling center models and teaching; a new kind of teaching which does not disperse knowledge, but rather facilitates personal discovery and learning.

Jerome Bruner (3) believes that it is the process of of problem-solving and discovery in learning that will bring about increased motivation for the subject and all of the appropriate interests and attitudes. He thinks that it is

not so much what is learned, but how it is learned which will determine the affective objectives that will be attained at the same time as cognitive objectives. Teachers sometimes sigh at this and say, "That sounds wonderful, but I don't have time to let all my students reinvent the wheel." This is missing the point and perhaps ignoring the value of what Maslow (9) calls the "peak experience." He has suggested that peak experience may have a powerful influence in major changes in the individual. Maslow's hypothesis is that a single powerful experience may have much more impact on the individual than many less powerful experiences. Bloom (6) states there is evidence that a single hour of classroom activity under certain conditions may bring about a major reorganization in cognitive as well as affective behaviors. And therein lies the challenge to all of us: how can we bring about peak experiences of discovery and insight?

It is time to examine more specifically what we mean, in terms of educational objectives, by the cognitive and affective domains. The most comprehensive efforts to clarify these domains are the taxonomy of educational objectives in the cognitive domain edited by Bloom (1) and a taxonomy classifying educational goals in the affective domain by Krathwell, Bloom and Masia (6). The work related to the cognitive domain investigates and defines knowledge as well as intellectual abilities and skills.

Knowledge is defined as the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting. The taxonomy of educational objectives related to knowledge emphasizes mostly the psychological process of remembering, although the process of relating facts in order to organize and reorganize a problem so that it may be solved is also considered. The broad term, knowledge, is broken down into subcategories.

Knowledge

1. Knowledge of Specifics: isolable bits of information at a low level of abstraction.

   a. knowledge of terminology: referents for specific symbols, verbal and nonverbal;
   b. knowledge of specific facts: dates, events, persons, places, etc.

2. Knowledge of Ways and Means of Dealing with Specifics: how to organize, study, judge and criticize.

   a. knowledge of conventions: characteristic ways of treating and presenting ideas and phenomena; e.g. verse, plays, scientific papers, correct form and usage in speech writing, etc.;

b. knowledge of trends and sequences: processes, directions, and movements of phenomena with respect to time;
c. knowledge of classifications and categories: classes, sets, divisions, and arrangements fundamental to a given subject field, purpose, argument or problem;
d. knowledge of criteria: how facts, principles, opinions, and conducts are tested or judged;
e. knowledge of methodology: methods of inquiry, techniques, and procedures employed in a particular subject field as well as those employed in investigating particular problems and phenomena.

3. Knowledge of the Universals and Abstractions in a Field: the major schemes and patterns by which phenomena and ideas are organized.

a. knowledge of principles and generalizations: particular abstractions which summarize observations of phenomena;
b. knowledge of theories and structures: the body or principles and generalizations together with their interrelations which present a clear, rounded, and systemic view of a complex phenomenon, problem or field; e.g., a relatively complete formulation of the theory of evolution.

The second main area of cognitive domain is intellectual abilities and skills which refer to organized modes of operation and generalized techniques for dealing with materials and problems. The abilities and skills objectives emphasize the mental processes of organizing and reorganizing material to achieve a particular purpose. The materials may be given or remembered.

Intellectual Ability and Skills

1. Comprehension: the lowest level of understanding whereby an individual knows what is being communicated and can make use of the material or ideas without necessarily relating it to other material or seeing its full implications.

a. translation: comprehension as evidenced by the care and accuracy with which a communication is paraphrased or rendered from one language or form of communication to another; e.g., the ability to understand non-literal statements (metaphor, symbolism, irony, exaggeration); also, the skill in translating mathematical verbal material into symbolic statements and vice-versa;
b. interpretation: the explanation or summarization of a communication involving a reordering, re-

arrangement, or new view of the material;

c. extrapolation: the extension of trends or tendencies beyond the given data to determine implications, consequences, corollaries, effect, etc., which are in accordance with the conditions described in the original communication.

2. Application: the use of abstractions in a particular and concrete situation; e.g., application to the phenomena discussed in one paper of the scientific terms or concepts used in other papers.

3. Analysis: the breakdown of a communication into its constituent elements or parts so that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit.
   a. analysis of elements: identification of the elements included in a communication; e.g., the ability to recognize unstated assumptions, and skill in distinguishing facts from hypotheses;
   b. analysis of relationships: the connections and interactions between the elements and parts of a communication; e.g., the ability to check the consistency of hypotheses with given information and assumptions;
   c. analysis of organizational principles: the organization, systematic arrangement, and structure which hold the communication together; this includes the "explicit" as well as the "implicit" structure e.g., the ability to recognize form and pattern in literary or artistic works as a means of understanding their meaning; also, the ability to recognize the general techniques used in persuasive materials such as advertising and propaganda.

4. Synthesis: the putting together of elements and parts so as to form a whole; and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before.
   a. production of a unique communication; the development of a communication in which the writer or speaker attempts to convey ideas, feelings and/or experience to others.
   b. production of a plan, or proposed set of operations: the development of a plan of work or the proposal of a plan of work or the proposal of a plan of operations; e.g., the ability to propose ways of testing hypotheses;
   c. derivation of a set of abstract relations: the development of a set of abstract relations either to classify or explain particular data or formulas, or the deduction of propositions and relations from a set of basic propositions or symbolic represent-

ations; e.g., the ability to make mathematic discoveries and generalizations.

5. Evaluation: judgments about the value of material and methods for given purposes. Use of a standard of appraisal. The critieria may be those determined by the student or those which are given to him.
   a. judgments in terms of internal evidence: evaluation of the accuracy of a communication from such evidence as logical accuracy, consistency, and other internal criteria; e.g., the ability to indicate logical fallacies in arguments;
   b. judgments in terms of external criteria: evaluation of material with reference to selected or remembered criteria; e.g., the comparison of major theories, generalizations, and facts about particular cultures. Also, judging by external standards, the ability to compare a work with the highest known standards in its field--especially with other works of recognized excellence.

The second taxonomy of educational objectives relates to the affective domain and leads us more fully into an understanding of the whole learning self. In general, the objectives in the affective domain deal with interests, attitudes, values, appreciation and adjustment. Specifically they are characterized as follows:

1. Receiving (Attending): the level at which the learner is sensitized to the existence of certain phenomena and stimuli; that is, he is willing to receive or attend to them. The category of Receiving has been divided into three sub-categories which represent a continuum: from an extremely passive position or role on the part of the learner to a point at which the learner directs his attention, at least at a semi-conscious level, toward the preferred stimuli.
   a. awareness: almost a cognitive behavior. But unlike knowledge, we are not so much concerned with memory as we are that the learner will be merely conscious of something, taking into account a situation, phenomenon, object, or stage of affairs. There is no assessment of the qualities or nature of the stimulus. There can be simple awareness without specific discrimination or recognition of the objective characteristics of the object. The individual may not be able to verbalize the aspects of the stimulus which cause the awareness; e.g., being aware of aesthetic factors in dress, furnishings, architecture, city design, good art, etc.
   b. willingness to receive: being willing to tolerate a given stimulus and not avoid it, involving a neutrality or suspended judgment toward the stimulus;

e.g., attending carefully when others speak; also, appreciating (tolerating) cultural patterns exhibited by individuals from other groups.

c. controlled or selected attention: a higher level involving differentiation of a given stimulus into figure and ground at a conscious or perhaps a semi-conscious level--the differentiation of aspects of a stimulus which is perceived as clearly marked off from adjacent impressions. The perception is still without tension or assessment, and the student may not know the technical terms or symbols with which to describe it correctly or precisely to others. There is an element of the learner's controlling the situation here, so that the favored stimulus is selected and attended to despite completing and distracting stimuli. An example would be listening to music with some discrimination as to its mood and meaning and with some recognition of the contributions of various musical elements and instruments to the total effect.

2. Responding: the level at which we are concerned with responses go beyond merely attending to the phenomenon. The student is sufficiently motivated that he is not just willing to attend, but he is actively attending. At a first stage in a "learning by doing" (or experiencing) process the student is committing himself in a small measure to the phenomena involved; he is doing something with or about the phenomenon besides merely perceiving it. This is the category that many teachers will find best describes their "interest" objectives. They want a student to become sufficiently involved in a subject, phenomenon, or activity that he will seek it out and gain satisfaction from working with it or engaging in it.

   a. acquiescence in responding: "obedience" or "compliance" would also describe this behavior. At this lowest level of responding, there is a passiveness so far as the initiation of the behavior is concerned, and the stimulus calling for responding behavior is not subtle. Compliance is perhaps a better term than obedience, since there is more of the element of reaction to a suggestion and less of the implication of resistance or yielding unwillingly. The student makes the response, but he has not fully accepted the necessity for doing so; e.g., willingness to comply with health regulations; or obeying the rules.

   b. willingness to respond: implying the capacity for voluntary activity. The element of resistance or of yielding unwillingly is here replaced with consent or proceeding from one's own choices; e.g., acquainting one's self with significant current issues in international, political, social, and economic

affairs through voluntary reading and discussion.

c. satisfaction in response: the additional element in the step beyond the willingness to respond level; the consent, the assent to responding, or the voluntary response, is that behavior is accompanied by a feeling of satisfaction, an emotional response, generally of pleasure, zest or enjoyment. The emotional component appears gradually through the range of internalization categories. Two examples would be: enjoyment of self-expression in music and in arts and crafts as another means of personal enrichment; and finding pleasure in reading for recreation.

3. Valuing: a term employed in its usual sense: that a thing, phenomenon, or behavior has worth. This abstract concept of worth is in part a result of the individuals own valuing or assessment, but it is much more a social product that has been slowly internalized or accepted and has come to be used by the student as his own criterion of worth. Behavior at this level is sufficiently consistent and stable to have taken on the characteristics of a belief or an attitude; therefore, this category will be found appropriate for many objectives that use the terms "attitude", "belief", as well as, of course, "value."

   a. acceptance of a value: the ascribing of worth to a phenomenon, behavior, object, etc. At this lowest level or valuing, we are concerned with the lowest levels of certainty; that is, there is much of a readiness to re-evaluate one's position than at the higher levels.

   b. preference for a value: a level of behavior that implies not just the acceptance of a value to the point of being willing to be identified with it, but also being sufficiently committed to the value to pursue it, to seek it out, to want it, e.g., assuming the responsibility for drawing reticent members of a group into conversation.

   c. commitment: a level of belief involving a high degree of certainty. The ideas of "conviction" and "certainty beyond a shadow of a doubt" help to convey further the level of behavior intended; e.g., devotion to those ideas and ideals which are the foundations of democracy. Also, faith in the power of reason and in methods of experiment and discussion.

4. Organization: the necessity for organizing values into a system, determining interrelationships among them, and establishing the dominant and pervasive ones. This is important because as the learner successively internalizes values, he encounters situations for which more than one value is relevant.

a. conceptualization of a value: abstract conceptualization and, in this sense, symbolic. The symbols need not be verbal symbols. Whether conceptualization first appears at this point on the affective continuum is a moot point; e.g., attempting to identify the characteristics of an art object admired. Also, forming judgments as to the responsibility of society for conserving human and material resources.

b. organization of a value system: objectives which require the learner to bring together a complex of values, possibly disparate values, and to bring these into an ordered relationship with one another. Ideally, the ordered relationship will be one which is harmonious and internally consistent. This is, of course, the goal of such objectives, which seek to have the student formulate a philosophy of life. In actuality, the integration may be something less than entirely harmonious. More likely, the relationship is better described as a kind of dynamic equilibrium which is, in part, dependent upon those portions of the environment which are salient at any point in time. In many instances the organization of values may result in their synthesis into a new value complex of a higher order. An example would be: weighing alternative social policies and practices against the standards of the public welfare rather than the advantage of specialized and narrow interest groups.

5. Characterization by a Value or Value Complex: the level of internalization at which the values have already a place in the individual's value hierarchy, are organized into some kind of internally consistent system, have controlled the behavior of the individual for a sufficient time that he has adapted to behaving this way; and an evocation of the behavior no longer arouses emotion or effect except when the individual is threatened or challenged.

The individual acts consistently in accordance with the values he has internalized at this level, and it is important to indicate two things: (a) the generalization of this control to so much of the individual's behavior that he is described and characterized as a person by these pervasive tendencies, and (b) the integration of these beliefs, ideas, and attitudes into a total philosophy or world view.

a. generalized set: that which gives an internal consistency to the system of attitudes and values at any particular moment. It is selective responding at a very high level. It is a persistent and consistent response to a family of related situations or objects. It may often be an unconscious set which guides action without

conscious forethought. The generalized set may be thought of as closely related to the idea of an attitude cluster, where the community is based on behavioral characteristics rather than the subject or object of the attitude. A generalized set is a basic orientation which enables the individual to reduce and order the complex world about him and to act consistently and effectively in it. Examples are: readiness to revise judgments and to change behavior in the light of evidence: and judging problems and issues in terms of situations, issues, purposes, and consequences, all involved rather than in terms of fixed, dogmatic, precepts or emotionally wishful thinking.

b. characterization: the peak of the internalization process which includes those objectives which are broadest with respect both to the phenomena covered and to the range of behavior which they comprise. Here are found those objectives which concern one's view of the universe, one's philosophy of life, one's Weltanschauung--a value system having as its object the whole of what is known or knowable.

Objectives here are more than generalized sets in the sense that they involve a greater inclusiveness and, within the group of attitudes, behaviors, beliefs, or ideas, an emphasis of internal consistency. These objectives are so encompassing that they tend to characterize the individual almost completely. Some outcomes in terms of a student's growth would be: development of a code of civic behavior based on ethical principles consistent with democratic ideals; and the development of a consistent philosophy of life.

Now that we have an overview of how educational objectives can be related to both the cognitive and affective domains, it is for each of us to create programs and educational settings which will help meet these objectives. It is clear that affective states of receiving, responding, valuing and internalizing organized values are vital prerequisites to cognitive functions. It should be remembered however, that while we can define educational objectives into these two domains (albeit with some overlapping), human behavior in general can rarely be neatly compartmentalized in terms of cognition and affect, as Bloom (6) himself points out. Still, we can further develop our understanding of students, particularly college students, by identifying some of their highly contemporary needs. Many of these needs are related to new kinds of affective changes which often supersede and transcend those related to educational objectives in our classrooms. They are powerfully influencial, and we must understand them well if we are to relate authentically to our students and be effective in our roles as facilitators of learning.

Karem Monsour (10, pp. 2-4), a well-known psychiatrist, writes about the experience of young adults in this way:

> Living together in a grim, polarized, and even joyless world induces temporary despair which at times overtakes those of us who are older and who have in one way or another made some kind of peace with our past and our present lives. Such temporary despair, however, may be a more permanent dispair to the young who are unable to resolve the discrepancies between their vision of a humanistic life with their perception of the political, social and ecological disarray around them. It is the need to infuse their lifes with authentic meaning which informs their search for ways of growth and self-realization. The variety of divergent life styles, from asceticism to communal living, which characterizes this search represents an attempt by the young to communicate their vision of society and the world as depersonalized, mechanized, and dangerous to survival of living forms.

As Dr. Monsour further explains,

> Many normal college students in our time are trying to devise and seek new ways of learning and becoming. They resort to political action and peace demonstrations, social action and protest, drugs and meditation, encounter groups and body awareness, volunteer service in ghetto schools and mental hospitals, petitions for ecological and environmental renewal, astrology and telepathy, committees for educational alternatives, 'new' schools, 'experimental' colleges, music and poetry, anti-war programs, and draft resistance, communal living styles, civil rights activism, etc. The many forms of student activity leave one uncertain of their eventual impact on the personal, educational, social, and political problems toward which they are directed.
>
> One issue, however, seems clear enough: effective and constructive action of any sort is contingent upon (emergence of) a sense of personal worth and meaning, a sense of belonging , a sense of positive identity, and relationship to the social order and with other fellow men.

These excellent paragraphs characterize well the deep concerns of many of our students. Chickering (4) has summarized also the pressing needs of college-age youth. He mentions some of the key developmental challenges faced by young people. They are: achieving competence (intellectually,

interpersonally, and socially); learning to manage emotions; and becoming autonomous or emotionally independent beginning with disengagement from parents. Regarding the latter point, Chickering notes, however, that students eventually realize that parents cannot be completely dispensed with except at the price of continuing pain for all. Some ancillary needs of young people related to this insight are: learning that they cannot be supported indefinitely without working; recognizing that they cannot expect to receive the benefits of a social structure without contributing to it; and realizing that loving and being loved are necessarily complementary. Chickering points out that when interdependence is recognized and accepted, the boundaries of personal choice become more clear. He then goes on to describe the young adult's need to establish identity, using Erikson's concept of identity as the confidence that one's ability to maintain inner sameness and continuity is reinforced by the sameness of one's meaning for others. Three last developmental needs described by Chickering are: achieving free interpersonal relations, clarifying personal purposes and and goals, and developing integrity.

Conclusion

Hopefully, we are now beginning to see students as whole persons with a broad spectrum of needs, many of which we can help to meet. Moreover, we now need to have more respect for the potential of students. We need a new concept of human potential in order to realize the great gap between what our students do and what they could not only do but be. We are limited in our view of potential activity, for example, by our past ideas of what is "normal" for students. We are over-influenced by data on their past performances, intimidated by their cumulative record files, and not interested enough in their potential. Kubie (7, p.6) states, "Man's actual creative productivity, as compared to his potential creativity, is pitifully reduced by the ubiquitous, masked, neurotic ingredients of what is euphemistically called 'normal' human nature." It is vital to let students know that the barriers and inhibitions of the past need not exist in the present or future. The fact that counselors and teachers have faith in students' potential, their human potential as whole persons, must be felt by the students. Many studies have confirmed that the expectations of teachers greatly influence the learning of their students.

By now I hope it is clear that we can no longer afford to fragment the learning and personalities of our students. We want them to be independent learning persons: intellectually competent, articulately communicative, emotionally free, idea speaking, idea creating, and honest in their relationships. We want them to have sound and well organized values. We want them to be able to say, "I think, therefore I am." But we also want them to sense, "I feel, therefore

I am." If we are truly interested in facilitating learning much depends on our own willingness to live self-disclosingly, to develop truly human relationships with our students, and to be open to discovery ourselves. In a recent speech, John Vasconcellos (11) summed it up very well. He said that if we truly want to understand and help the person of tomorrow, we must become the persons of tomorrow.

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A University Learning Center

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The Learning Center is one of the several resource centers which compose the Student Counseling Services at UCLA. It represents one attempt at recognizing the wide variations between students as to primary concerns, life styles, and values. As part of the Student Services, we are a non-academic department. There is no fee, no records are kept, and neither grades nor credit are given for the work done at the Center. Attendance is entirely voluntary. Students are referred to us by their instructors, academic advisers, counselors or friends; some remember having heard about us during orientation; some "happen" upon us. In the total absence of external controls, the only "hold" we have on our students is their own desire for self-improvement and a shared faith that it can and will happen.

The Learning Center was established approximately one year ago to serve a specific population, one new and unique to the University community, the Special Entry Students. The first of these groups was the High Potential Program, consisting of four components: Black, Chicano, Indian, and Asian. Students were selected for this special education program on the basis of their anticipated potential rather than on previously demonstrated academic performance. Because most of these students had experienced failure in traditional school settings and because new approaches to learning were being sought, we were invited to lend support to the challenge of this new program. At the present time we are available to anyone in the University community who is interested in increasing or refining his basic skills, and through this process to begin to experience excitment in learning and growing. This has included such groups as Educational Opportunity Program students, staff, and foreign students.

The development of a staff capable of responding to the particular needs of this population has been an exciting process. Currently the staff consists of five part-time counselors and one intern-trainee. Four of the staff mem-

bers have had previous experience in working in the Reading and Study Center with regularly enrolled UCLA students prior to the opening of the Learning Center. More importantly, the staff possesses a wide variety of academic backgrounds, life-styles, ages, and experiences. However, we all share certain desires and beliefs. First, a desire to accept the challenges of our changing world. Second, a belief that a student will learn more if he has the help of an interested person who honestly believes that the student can learn. Third, a desire to respond to whatever concerns the student brings, and to help him change to survive in the University environment.

The location and physical surroundings of the Center have been a happy accident. Located in an attic, which serves as a bridge between the old wing and the new wing of the administration building, we are half way between the Student Counseling Center and the Financial Aids Offices, and therefore, in a heavily trafficked area. Our two small rooms, with slanted ceilings, dormer windows, informal furnishings, and bright accents, look more like someone's "pad" than a University office. Often a student will stop at our door to comment on our "looks", stay to find out who we are, and accept our invitation to return when he has more time.

Because of the "fish bowl" quality of our existence, the staff has learned to operate as a team. We have developed a mutual respect for and trust in each other, a comfortable acceptance of participation in all tasks and functions, and a remarkable openness in our relationships. How it all happened, and we are really not sure how, the results have been very exciting for us. We have an open door, weekdays from nine to five. We give directions to people looking for other offices; we always take the time to answer questions about the Center or whatever; we welcome students who just want to browse; and of course, we have a counselor immediately available for the student who is ready to begin to work. Because we work in the open, and because of the diversity represented in the staff, every student has a wider range of resources, models, and ideas from which to choose. In some cases students choose to work together, with or without a counselor. Working this way makes it essential that the staff engage in continuing dialogue regarding each student's progress. This has helped to insure general agreement about the continuity to his program. While these discussions have facilitated considerable staff growth, we have made an effort to not lose sight of our main purpose-to assist each student in his effort to become an independent learner.

We feel that as a result of this kind of teamwork most students have a unique and positive experience in the Learning Center. For the student who is not ready for the team approach we can and do make provisions for privacy. A simple nod, gesture, or occasional request for privacy is im-

mediately noticed and the rest of the team moves off. We must add that we have a lot of fun, too. The struggle to master basic skills can become very intense work, but we've discovered that humor plays an important part in learning. In the final analysis, we have learned that we have to do whatever is necessary to facilitate learning-we don't make people learn-we try to free them to learn.

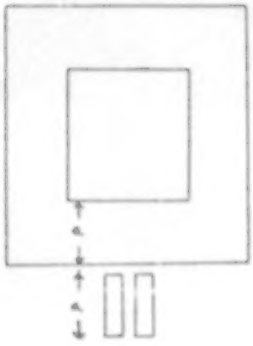
As we mentioned earlier, we do not keep records. We are not concerned with compiling statistics; all that we can say is that we worked with approximately 250 individuals during the last quarter. We kept no record of the number of contacts or hours spend with each individual.

We are concerned with helping each person to survive as a human being, and for that human being to survive in the University. How could we best accomplish this? Our earlier failures in attempting to work with Special Entry students in a traditional university setting taught us that some different ways were necessary to meet these needs.

HOW TO FIND THEM?

The problem we encountered is illustrated in Joseph Church's (1) Moat Problem.

> "....a square moat, the same width on all four sides. For purposes of the problem, the moat is infinitely deep. The task is to make a usable bridge across the moat. The only materials are two boards, each just shorter than the width of the moat. Once this problem has been solved, the moat will never look the same again."



The Moat Problem represents a rough analogy to our dilemma and the situation of our students as we faced the task before us. As long as we continued to ask the same

old questions in the same old way, we could not help people to cross the moat and capture the castle!

Although we had among us many years of experience counseling regular University students, we knew that we really did not know or could not choose *a priori* techniques or methods that would help our students to survive in their new environment. So we began with the idea that I. A. Richards (2) calls "feedforward". Based on certain hypotheses we planned programs. The feedback resulting from the activation of these plans were used to evaluate and alter the activities. Our original hypotheses were as follows:

1. The traditional methods of instruction had not worked for the Special Entry Students. Was it because their actual life experiences and circumstances had been so different and/or difficult?
2. There would be large lacunae in skill areas, and there would not be a large reservoir of traditionally shared experience on which to draw. Could we make any of the usual assumptions about performance level or previous learning?
3. The absence of these shared experiences would probably alter their perceptions of the University. Had they had any opportunities to gather the kind of information from parents, older siblings, or friends that leads to an operational and attitudinal know-how of college life? Did they know how to use resources, such as books, libraries, service people? Did the differences in culture, language, and values with which they came make it overwhelmingly difficult to learn or accept the University culture? Did they see college simply as an extension of the High School experience?
4. Based on hypotheses 2 and 3 we might expect to meet attitudes of hostility, apathy, or both.
5. Long term goal orientation would be lacking for most.
6. We fully anticipated that the intellectual potential of these students would be equal to that of the regularly enrolled University students.

As we proceeded to "feedforward", our earliest "feedback" helped us to learn very quickly what our limitations should be. For a variety of cogent reasons we learned that we should not be dealing with Ethnic Studies, nor should our focus be on course content. Moreover, we could not allow our Center to become a tutorial service as "tutoring" is usually understood by students.

What we could do most effectively was to focus on the learning processes supported by basic skills, while dealing with any personal counseling that arose within that context.

There were two essential "sets" that began to emerge. Set A- We had to involve the student in the discovery of his own needs and the setting of his own goals. We had to facilitate his involvement and interest in his own learning.

We had to be especially aware and sensitive to avoid diminishing the person as an individual, while helping him to use frustration effectively. Set B- We had to help each individual to build a bridge from where he was to the reality of the University. Most of our students were "strangers in a strange land." We had to help them write the guide book to this foreign country, its customs, and its language, its responsibilities as well as its privileges. Likewise, most of our students were strangers to their own learning-reasoning processes. They needed to be made aware of what it was that they were doing when learning took place, and where they got off the track when it didn't happen for them. And, because we are always working under extreme time pressure, generated both by the quarter system and the uncertainty as to the number of hours we would see any particular student, it soon became apparent that we had to carry on all these processes simultaneously.

We discovered that it was possible to accomplish our goals by developing a wide repertoire of approaches to any particular skill area. Fortunately, we had some back-log of experiences, but we have had to engage in a continual search both for new materials and new approaches. The counselors' diverse educational backgrounds have provided a large pool of resources. The particular skill areas in which we have been engaged are: reading, writing, speaking, listening, spelling, vocabulary, all aspects of study skills, and basic problem solving areas. We have worked out developmental sequences of experience in all of these areas. A student may begin at any point in the sequence according to his needs, and may shift direction at any time that it seems appropriate to do so. These decisions are always made jointly by the counselor and the student.

We have given a great deal of thought to creating unusual approaches to learning basic skills. The following is one example:

Language - a symbolic process

Many of the students we see have good oral skills, but they make no connection between their speaking and listening skills and their reading and writing skills. We were concerned with making the students aware of the interconnection between the oral and written forms of symbol usage. One specific goal was to involve students in experiences which would demonstrate these connections.

We started with the discussion of familiar non-verbal symbols: gestures, colors, uniforms, signal systems, etc. We struggled to understand how these non-verbal symbols were used to symbolize meaning. Next, we presented pictures (3). We asked the students what the picture "said" and to point to the details that helped them "read" the picture's message. Next, the students were given a highly descriptive passage to read and then asked to draw what they "saw",

with as many of the details as possible. We were not interested in the quality of the art work-stick figures were fine. We have found that this sequence does help students to build confidence in their ability to handle symbols, and they are then more willing to tackle the whole area of language as a communication process.

We have in the past and are now in the process of developing other new approaches in the areas of spelling, speaking, writing, and listening.

We use ourselves as models to teach the learning processes of acquistion, transformation, and evaluation as we attack whatever presenting need or problem the student brings. We walk with the individual through the problem, continually feeding back to him what it is that we are doing and thinking - and why. At the same time we engage the student in dialogue about what he is thinking and feeling- and why. When we reach an impasse we make this obvious to the student, and we also make it apparent how we ourselves need to turn to resources - books, dictionaries, other people - in search for solutions.

Clearly the nature of our student, the wide range of needs, and our manner of working taught us that we needed to work with individuals or in the smallest possible cluster groupings. We also came to know that there had to be an immediate and transferable reward for every student each time we worked with him. He had to be able to take away something that was of immediate use in his course work.

As we come to the end of our first year, how do we evaluate our work? So far we have made no effort to isolate the specific effect of the Center from the effect of the Special Entry Program with which the student is associated. We have attempted to encourage the student to evaluate his progress in relation to the goals he has established for himself. Has there been a change in his behavior, skills, or attitudes with which he is satisfied? Has he tested these changes in the real-world of the University/classroom? Is he satisfied for the present? Has he set new goals for himself? Does he want to continue working now-or return at another time? The choice is his.

When we try to evaluate what makes learning occur we are filled with a sense of awe at the complexity of the learning process and the extent to which it is not understood. We wish we could specify what makes the difference. We feel that our environment, our ways of involving people in the work they do, our emphasis on being credible, have contributed to the success we have had. But, beyond all this there is some kind of "magic" that happens for some students and not for others. When it happens, we back-tr ck with the student trying to locate the moment or situation that seemed to be the touchstone. What has emerged from these dialogues is that there is no particular technique, method, material, or sequence of work to which the transformation can be attributed. The phenomenon occurs at a

point where something the individual experiences generates in him a strong sense of potency, strong enough to transfer to other areas of his life. There also seems to be emerging evidence that trust and faith need to be present, but most significant of all is the freedom to struggle. The moth must struggle from the cacoon with his own power if he is ever to fly. Perhaps our most important role is not to prevent this kind of struggle, but to make it more effective.

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Twenty Days in August: An Intensive Program

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As the title of this presentation suggests, it concerns a twenty day program in Reading/Study Skills conducted at El Camino College. Lab sessions were held three hours daily for four weeks. The system primarily employed in tooling the lab was the SR/SE (*), upon which was built an individually designed program as pertained to the peculiar needs of each student. The programs were limited only by the finitude of the staff's collaborative imagination and the physical inhibitions of our plant. No firm guidelines were ever issued. My role in the drama set therein was that of para-professional staff. I am convinced that that phrase was coined to give some semblence of prestige to otherwise sparsely qualified individuals who like myself, through whatever magic, suddenly find themselves staffing a reading lab. In any case my functions lay in three areas: general supervision, testing and scoring, and individual counseling. All of these functions were performed under the careful eye of Gene Kerstiens.

This then is my perspective: The lab was as much a learning experience for me as for any of my victims. As for my bias, I think it only fair to warn you in advance, I was impressed.

The end product of our project, in its least human terms, was a class overall increase of 25%iles (13th grade table) between A test Nelson Denny administered August 11,1970 and B test Nelson Denny administered September 4,1970. Also, to add to the indignity, our efforts were rewarded by a 20%ile increase over three Davis Reading tests inflicted at thirds over the same period. These, together with other incidental achievements in number increases, while not by any means evocative of glazed stares, are creditable.

In its most subjective sense the product was a student who in his first counseling session furtively confessed that he had never written a term paper. He had graduated from

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*Christ, Frank L. Survey of Reading/Study Efficiency. Chicago: Science Research Associates, Inc. 1968.

high school on the basis of themes written in every aspect by his mother and with a firm commitment to his own ineptitude. This student, through careful counseling, at times bordering on abuse, managed to raise himself from more than 20%ile below the class average to 2%ile above it. While it may not seem to the bystander that achieving mediocrity is cause for celebration, to this particular student there could have been no greater accolade, and as a counselor I can imagine no reward greater than the arrogance, and success, I find in him now. This was not an isolated incident. We witnessed several cases with similar situation and result.

Having participated in a number of labs previously and having found a positive dearth of such drama, it was reasonable to question at that point what our post-summer lab had going for it.

Not being one to leave rhetorical questions dangling, I wish to suggest three possibilities. The first of these is the availability of counseling. Labs were conducted on what could euphemistically be termed an informal basis. Three counselors - one instructor and two paraworkers - were constantly, even incessantly, pestering the students with test scores, suggestions for directed effort, physical suggestions (like visits to an opthalmologist), and otherwise making themselves a real part of their daily lives. Counseling sessions were conducted, never across a desk, whenever possible in whatever posture was most comfortable for the student (i.e., on the floor and/or ceiling) and always over coffee. These sessions originally terrified me. However, after a time it became apparent that for the most part these people were already quite aware of their own problems. By listening well enough and long enough, and only talking to answer specific problems, we both saved time and came much closer to solving inadequacies.

The second peculiarity, and perhaps the most extreme, was its intensity. We were forced into a situation where twenty days had to suffice for an entire semester. The result was that not only the students but the counselors as well were enjoined to work at a much accelerated pace. At the same time that students were pushed to achieve rapidly, counselors were required to fully exploit all the tools available to them. In order that students would be efficiently channeled into their major need areas and once there begin working on a streamlined, effective program, diagnostic testing, interpretation and counseling had to be almost simultaneously performed. Indicative of the pace of the program is the fact that at the end of the third day each student had accrued diagnostic measures on the following instruments: Purdue Test in English; Nelson-Denny, Form A; Davis Reading Test, Form 1A; Telebinocular Survey; Detroit Intelligence Test; Jastak Oral Reading Test; SRA/RFU General Placement Test; and a test of visual motor dominance. Other individualized tests and surveys were administered as needed. Though this situation carried some negative aspects, by and large it was an extremely pro-

ductive element. It lent itself to, or perhaps enforced, an almost instant feedback. Scores to diagnostic and performance tests were for the most part reported to the student on the same day that those tests were administered. The longest delay was not more than one class day. This, coupled wit the number of tests used, put the student at odds with his own previous levels while they were still very much fresh in his mind. The result was a motivation to advance far and away greater than any I had previously seen. One is never belittled in competition with himself and constant success reinforcement is unmatched as a tool for learning.

The third area, and to my mind, the most crucial, was that of independence. The single most important task facing us was the dissolution of the idea that reading and study skills were a matter of divine inspiration. Convincing the student that, on the contrary, they are acquirable skills like any other, was at one and the same time the most difficult and rewarding of our intended effects. This problem was met on all levels of the project, and, I trust, resolved at each. The Lab was held in complete autonomy, that is, it was not specifically related to any other class. It was conducted not as an investigation of some relative academic oddity, but rather as a lab session in a skill valuable on its own merit. It is my experience that study skills taken in conjunction with other courses tends to be either submerged or deferred; submerged in that it is treated as something having no priority and is therefore ignored in favor of more, as it were, relevant concerns and/or deferred in that it is treated with the same reverence as any other course of studies and is postponed until the problem is too critical to be handled easily.

Also, by creating an atmosphere in which each reading/study problem is a field unto itself, the mastery of that skill takes on dimensions far greater than can be instilled in offhand treatment. Hence, the reward being greater the effort put into achieving the goal increases proportionately.

On the basis of these observations and my experiences as both a student and counselor of study skills, I would like to suggest that the most efficient learning skills lab is one which is carefully and casually cultivated, which enjoys optimum immediacy in terms of reinforcement on all levels and which can begin to attribute to reading and study skills a position commensurate with their gravity.

The Paraprofessional in the Community College Reading and Study Center

Loretta Newman
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College Population - Yesterday and Today

Five years and more ago we had numerous problem students in academic classes. Many of them were white, were middle or upper class in background, and usually had a pampered, permissive upbringing. They were immature and lacked life experiences. We had only apathetic academic participation in class; school was dull most of the time from their viewpoint. They had a high school college preparatory background but too much money, which they earned too easily or had given to them. My remarks still apply to some of them but even more so to the newer groups in college.

Now we are getting new college populations from many disadvantaged groups. In the large urban community colleges they are coming in increasing numbers from ghetto and barrio recruitment. We are seeing more high school dropouts, more physically and mentally handicapped, more youngsters with delinquent backgrounds, prison inmates released to attend college classes, drug scene victims, ignorant young people caught in the current VD pandemic. We are seeing more unemployed, either new or unemployable. They come with not only poor educational backgrounds, but with much poorer environmental backgrounds. Some are angry and/or militant. Some are truly anxious to learn but find college a very foreign experience.

Many are returned veterans with poor educational backgrounds but with very different attitudes and motivation than the above. Another encouraging group is made up of early middle-aged women whose families are independent enough for them to come back to college to train themselves for a job.

What are some characteristics of the disadvantaged group types? They have either few basic educational skills or wide gaps in these skills. They have little mid-American cultural background. They are tense with fear and frustration occasioned by continued school failure. Some seem angry at everything and everyone. They are often illogical and sometimes irrational as they grope for answers, without having the

needed information or background to make such answers meaningful. Studies indicate they have a hidden potential as good as the average of our previous student population. They are just as nice a bunch of kids when you get them relaxed, success-oriented, hopeful, and finally firmly motivated to learn.

We have found that we get them this way more easily by making them independently successful, by helping them learn how to rely upon themselves, showing them how to teach themselves, acting like a friend instead of a teacher, staying behind the scene until they want us, and working through peer tutors who are coached to show endless patience, be warm and interested in these students, but still hold them to criterion standards but few deadlines.

This is what we want to talk about: these paraprofessionals or student tutors who are our new ace-in-the-hole in helping today's unprepared college students make the breakthroughs to learning how to learn. Whether the bulk of our current faculties are able and willing to change themselves and their self-images sufficiently to take advantage of this new educational tool remains to be seen. At Harbor, we are in our first year of a three-year EOP funded program. At the end of this period, our program will have to be solid enough to stand on its own feet. Our start seems favorable. Our EOP tutored students showed a 2.41 G.P.A. in their first semester. We have no illusions about the dropout possibilities, but we are hoping. After completing our summer program, ninety-six percent enrolled in the fall.

Metamorphosis

We are attempting to change the educationally unsuccessful person into a functioning college student through the four previously mentioned approaches: relaxation, success, hope and motivation. We try to accomplish these goals by making many changes in our former approaches. Most importantly, we have reversed many teaching techniques and we are learning how to use paraprofessionals. In the following section, the collective "we" refers to tutors and instructors.

Reversed Teaching Techniques. Relaxation. We changed from a class approach to an individualized one. We changed from the old college attitude of "I'm up here to cast my pearls of wisdom before you" to treating all our students as friends and human beings engaged in a common job. In this, our tutors easily pass us up. We moved from the front of the class to the rear. We changed from formal classroom procedures to informal. We went from teacher correction of work to tutor correction and much self-correction. Tutors take over after the first explanation or demonstration of new work by the instructor. More experienced tutors even do some explanations and demonstrations. We have moved from the old lecture approach to the newer laboratory self-training. We have had to change from college-level methods to elementary

ones, but with an adult approach.

Success. We let them know we are interested in them, in their success, and in their problems. We let them know that we believe they have the potential for learning. We point out areas in which they are bright, even brilliant, but stress that now as adults they need to pick up learning skills starting with reading comprehension skills. We constantly urge them to apply our course study skills to other classes and to other areas of life. If another course gets scary, we invite them to bring in that textbook. If we can't help sufficiently, we refer them to the EOP Tutor Center for special help. We let them know that the staff is there to help them learn how to learn. The tutors handle the close student contacts; and meet the class as a whole, only when necessary. Once a week small groups (two to five students) meet with the tutor to go over homework, discuss problems, etc. Tutors work often with individuals. They demonstrate or explain new activities or techniques when individual students are ready. The tutors follow up on class demonstrations until everyone is functioning successfully. When possible, we assign tutors to tutees of the same ethnic groups.

We find their reading level and start them there, regardless of how low it may be. We use programmed or semi-programmed material, using constant check tests with self-scoring. We praise every gain. We evaluate failure and use it as a learning tool or change the activity. We explain repeatedly anything that they stumble over. We provide as wide a variety of simple adult reading materials as we can find, trying to provide stories they can relate to without pushing these stories onto them.

We mark materials by "Level" (not grade), but we leave some "level 1's" in a box marked "general." This system hooks some who resent starting anything on step one. We discuss any problems in a matter-of-fact way regardless of what they bring up. We never show impatience or disgust at stupidity, carelessness, inability to follow directions, etc., but re-explain, ignore or redirect. We welcome and urge questions as the normal way man learns. We ask them advice on physical problems around the lab. We let them help on little things and take for granted that they will. We leave a wide assortment of paperbacks near the door with a simple sign-out slip for their use. Faculty and students donate what paperbacks we have. The more we lose, the more reading we assure is taking place.

Hope. We continually prove to them that they can learn. We accept even the most militant as likable people. We take a few minutes to listen and chat. We praise them to the sky for any success observed, then hold the carrot out a bit further in front of them. We commend them for wanting to improve their chances in the world by developing their ability to learn and to solve problems. We tell them of the successes of previous students who came in with similar problems.

The tutors themselves are obvious examples and are on-the-spot examples to emulate.

Motivation. Student motivation to learn is helped by his feeling good about himself, feeling he can learn, knowing he is succeeding, having friends in the Reading Center (often the only friendly place on the campus--the only place he can freely express himself and feel at home), having everything where he can reach it and use it, keeping a friendly, informal atmosphere in the Center, trusting him, liking him. Above all, a friendly and available staff scores heavily with these students. Also, they like self-scoring once they get used to it. They feel self-worth when asked to evaluate their lab programs and when allowed to help plan new directions to work in. They are proud to help each other although this we try to gently discourage if it is done in the quiet part of the classroom, as it interrupts the concentration of fellow students who may be timing a reading.

The Paraprofessional

Recruitment. We choose our tutors first from a reading class, especially remedial. We try to get them paid on our EOP, Work-Study, or Community Service programs. After that we seek volunteers. Some volunteers come from nearby state Colleges and are usually education majors. Some come from our Psychology 1, Education 1 or advanced reading classes which allow credit for field or volunteer work. We have a new Psychology 81 in which one unit of credit is given for three hours per week service in some course which they have taken before. Miscellaneous other sources include international club students, honor and service groups, and student government. On our Saturday Elementary Programs we also ask parents to stay to help at least every other Saturday. They usually work with children other than their own.

Class Tutors. These are assigned for five hours weekly--three in class, two for preparation and helping in lab operation duties. They help get their class underway by serving as T.A.'s on pre-tests, scoring, and recording. More experienced tutors help break in beginning tutors. (They have even written up tutor duties with step-by-step directions.) They next help around class as lab procedures are explained and new activites are started. They work directly with the students in many ways. They check homework, which is the writing part of the language arts approach that we use, for accuracy, following directions, legibility, format completeness etc. They go over the homework with students in groups of four or five at first, then fewer as the need for extra help lessens, excusing students when they are sure that mastery of techniques has occurred. These groups are assigned somewhat loosely based on similar problems as shown on the pre-tests. The tutors re-explain how to use the Newman Lab Manual, how to read the assignment tables, how to use the homework models, etc. They try to make sure that their

tutees understand why they are assigned each step and how they can benefit from it. They discuss the ideas in the chapters and go over class tests with them. They carefully discuss the OAR Study-Method and how to apply it to their reading class text first, then to their other texts. They discuss how their own reading class helped them. They listen to tutee problems--in reading, life, school, other subjects. (They report to the instructor for ideas for help when they need it.) They take their tutees on a personally guided tour of the library after discussing the need for and use of the college library. (Most of these students are actually afraid of the library.) They gradually assume more responsibility, but also they each have a KP job to perform as needed.

When we are fortunate enough to have a second tutor for a remedial class, we can have one of them handle the perceptual training (mostly on a tachistoflasher), do telebinocular surveys, and assist students who have questions on machines or new activities.

When the sun really shines and we have a third class tutor, he supervises a brief auditory training program of basic English sounds (phonics) with a taped pre-post sample of a short, short story using these sounds. Otherwise, students have to do this on their own, with fewer results.

Qualifications and Training. Tutors usually come to us with a reading course experience. They need to genuinely like people and want to help them. They should show that they have an easy way with people. We usually watch our classes and choose our class tutors rather carefully. Volunteers from other sources first help around the lab, help in the Saturday elementary reading programs, or do office work on Work/Study programs. All beginners first assist an experienced tutor. A few just dive in and learn as they go along. A few expire, but most survive. They get "involved" fast, like the feeling of satisfaction they get, and are amazed at how much they themselves are learning.

After four years we now have four levels of tutoring. The following recaps the previous generalized descriptive action.

First Semester. In the first semester a tutor checks homework, sits in on conferences, handles conferences, keeps an anecdotal record of tutees if anything unusual come up (not of a confidential nature, but educational) and discusses tutor or tutee problems with teacher or an older tutor.

Second Semester. A second semester tutor usually still scores some pre-post tests, works in the lab, works with students who need simple phonics, does some make-up pre-post testing with individuals, handles perceptual training, takes roll, records results, and makes announcements. He helps new tutors to some extent.

Third Semester. In the third semester, we add some full class work. They now introduce and demonstrate some new activities and begin to do large group testing. They supervise the training of new tutors. They begin to handle public

relations by representing the Lab in committee meetings. They write publicity, promote pictures, and choose the shots, promote articles in the school paper, promote interest in the lab around the campus, and visit nearby high schools in cooperation with EOP recruitment to talk about the college and how the Reading Center can help start them off right. They serve as host or hostess in the lab, showing visitors around if the Director is not there. They meet the public not only in the Center but also in the community. They now can serve as a Tutor Coordinator or Manager in experimental projects and Saturday programs for elementary, high school, college, and adults. They organize anecdotal records, tabulate evaluations, write up the history of the lab, work up simple statistics, charts, etc. They even help develop requisitions for equipment and supplies.

Fourth Semester. We call the fourth semester "Junior Teaching." Now they take over classes when the instructor is away, handle most of the roll and records, help develop new lab projects and teaching packages, and can serve on the School Advisory Committee for the Disadvantaged.

Tutor Staff Meetings. These are held only when needed, as it is difficult to find a time when everyone can attend. However, the tutors say they like to get together, it makes them feel more a part of the team. Usually, information is left in the mail tray for their class which is near my desk, or, if they are not a class tutor, then on their mail clip. We have a string of nails with clips on them which serve for a mail exchange. Along with this, they have a wall and door on which general bulletins for them are placed. During the summer, we meet daily over lunch to discuss problems and progress. We are thinking of requiring all tutors to meet once a week for a staff meeting, for which they would receive one hour of pay or one unit of credit.

We have three other tutor projects on the campus: subject tutors, peer counselors, and counselor assistants. The subject tutors must be strong in the subject they tutor. They work in or near the Reading/Study Skills Center. We have a small learning lab across the back of one of our reading classrooms. Although we have a serious need for more room, our young people are amazingly flexible in adjusting to inconvenience. Building plans for a tutor center as part of our Reading/Skills Center are on the drawing board, providing an expansion from 2,500 square feet to 7,300 square feet. All we are looking for is money.

The academic tutors work with one student from one to five hours per week. Originally, we started out with all volunteer tutors cleared from student government workers and officers, honor society, and service groups. In the student union and cafeteria we kept huge posters which we brought up to date each week, showing what subjects and at what hours anyone could get help in the Reading/Skills Center. Then we kept up to date weekly in the Center a smaller chart that gave the name of the tutor and his subject. We made subject

name cards out of five by eight cards (bent over) which the tutor picked up as he came in. Then he set himself up at a table and studied until someone came in for help. This way he didn't lose any time if no one came. This was hard to keep up as no one had the time to supervise and sponsor it sufficiently. It was with relief that we were able to turn this part over to our very capable administrative assistant this fall. He was able to give two and one-half days per week to it. Now we have a fulltime EOP Director who continues to oversee it.

The psychology department has supervised two very successful attempts at small group discussion sessions on personal and school problems, meeting for two hours per week. Under Community Services we are trying to expand this into a Community Help Center for young people. The need is tremendous and critical in our area.

The Counseling Assistant program assigns students trained by counselors to help disadvantaged (and other) students in learning the ropes on registration, reading the catalog, touring the campus, speaking in nearby high schools and participating in other counseling-connected activities

The Reading Center-A Team Proposal

We have an evolving need for two kinds of specialists today, psychologists as well as English reading specialists.

The Psychologist-Reading Specialist. Therapeutic treatments effective on abnormal conditions can, in modified forms, work effectively on the new "unnormal" college populations we are seeing today. Before we can teach typical college courses to these people, we have to be able to reach them. Psychologists know many things about human behavior that, if used in the first semester or two, can help many of our new students knock down the tremendous walls that stand between them and learning how to learn. In the process, basic reading, vocabulary, and spelling skills can be gently introduced if on a constant success level.

The English-Reading Specialist. THEN--reading teachers with English backgrounds who are tolerant, interested, gentle people can move in and more successfully cope with the many gaps in backgrounds and language skills that are still there.

The Center Staff. The time is coming when much of the college faculty will have to become more receptive to College Reading/Study Skill techniques as a part of their teaching in any subject. The general faculty will need in-service training in how to make effective use of the new systems approaches. They are beginning to learn how to reinforce and supplement their course work by developing or choosing additional segments that their students can do in the Reading/Study Skills Center by self-teaching or with special tutor help. Once the Reading/Study Skills Center has become a friendly place to these students, they need to be able to return to it to work out future problems in all their other courses as

they come up. This means a permanent staff specially geared to helping students with educational problems. Such a staff might be made up as follows:

(1) A full-time overall Director, empowered to make necessary decisions (which implies sub-administrative status), who will work in close liaison with EOP and other programs and divisions in the school.
(2) A full-time non-certified laboratory assistant.
(3) Reading teachers and volunteer part-time teachers from other academic disciplines.
(4) An extensive tutor staff.
(5) Work-Study students.
(6) Volunteer workers.

There are many different kinds of paraprofessionals still needed in the Reading/Study Skills Centers of tomorrow. We should be developing them today. The four-year colleges and community colleges could work together to do the job; everyone would benefit.

Questioning Strategies in Reading

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Questioning strategies is a popular and powerful phrase in teacher education right now. The improvement of teacher's ability to question has as its objective the improvement of student's thinking. As teachers improve and expand their questioning strategies, the thinking of students is lifted from literal level to other levels in the intellectual hierarchy. The research of Taba, Gayne, Bruner, Piaget, and others on the thinking processes, undergirds the necessity for teachers to go beyond fact questions to the kinds of questions that open the way for students to manipulate concepts or ideas.

Probably the goal of education has always been to improve thinking skills, and the present emphasis on teachers' questioning strategies is a coup in teacher-training programs, whether the teachers be reading teachers, science teachers, or vocational arts teachers.

But all this training of teachers still makes school a place where teachers ask the questions and students try to give the right answers. For the most part, learning to improve questioning strategies has been on the part of the teacher. He has been and is learning to ask questions that will facilitate students' thinking.

But once the student is out of school, who's going to ask the questions? Having been nurtured on even the improved questioning of teachers which motivates him to think at deeper levels, will he be able to continue thinking deeply when no one asks him questions, when no one provides the stimulus to which he is supposed to respond? School occupies only from 10 percent to 23 or 24 percent of a person's life. Without anyone to ask him questions for the 70 to 80 percent of his life span, which constitutes adulthood, do the higher thinking processes, that the expert teacher-questioner tried to stimulate, debilitate, grow flabby and weak? Does he become a sponge soaking up what any typewriter-beater turns out? Recall please the recent

verbalizations of one of our top government officials. Did he or did he not imply that Americans are unable to sift the output of the news media and to separate wheat from chaff? Does teacher improvement in the skill of questioning make questioners of students? If so, how? By osmosis? By contagion? By imitation? I think not.

Surely the training in questioning strategies stops short if it stops with the teacher. By passing on the expertise of questioning, the how and the why of the skill, students will be let in on the secret, too. If the teacher identifies the art of questioning as a learning technique, guides students in its use, and arranges the environment so they can practice it, we might change the school from a place where students are taught to answer to a place where students also learn to question, both as they listen and as they read...to question in order to investigate, to reason, to make decisions, to solve problems. These are the requisites of homo sapiens, yes?

Do you find it as ironic as I do that we are occupying time and space talking about teaching the skill of questioning, either to the teacher or to the student? More accurately, we should be using the word reteaching or retraining. Recall, if you will, the questioning techniques of three-year-olds, four-year-olds, five-year-olds. At five their questions are more refined and sophisticated than at three. They are well on their way to being pros. They are walking question marks. What happens to their curiosity, their growing facility to question? How is it that after a few semesters in school, children perceive that to ask a question is to stand nakedly ignorant before the rest of the class, indeed the rest of the world? Were each of us to respond to the question, we would find similarities in our answers. Despite our knowing the reason, we educators continue to change questioning preschoolers into question-shy students. School continues to be, with some exceptions, places where students are the answerers and teachers are the questioners, and not very good ones at that.

This digression to take a look at the status quo leads us back to topic, "Questioning Strategies in Reading" or more appropriately, "Is the Right Person Being Trained - Perhaps Retrained - To Ask Questions?"

As reading teachers, we are committed to helping students transform into adults who will spend the rest of their lives questioning as they read. Having competency in questioning gives readers greater management over the printed word designed to exert influence. Surely then we of all teachers need to train students in the skill of questioning. If there is even one student who doesn't know that he's supposed to question answers, that's 100 percent too many.

Because college students have had twelve or thirteen years of conditioning in becoming answerers instead of questioners, their retraining isn't easy. But we can do it

by working on the learning principle that

"When a skill is identified, given guidance and provided practice time, growth takes place."

Our first job then is to identify for students the skill of questioning as a way of understanding a writer, as a way of pinpointing his purpose, as a way of synthesizing what a writer says into ideas and concepts, as a way of evaluating an author's ideas, as a way of making judgments, as a way of formulating alternative solutions to problems posed in print. Good readers search among a writer's words to find what he is thinking and/or what he wishes the reader to think. Good readers search with questions.

Our second job is to demonstrate for students how questioning is done, in order to derive maximum learning-such as a golf pro demonstrates body movements for effecting the best drive.

But we can't stop here. For growth to take place, according to the learning theory quoted, we must also arrange the environment so students can practice the skill of questioning. It is this third step that raises something of a problem for us as teachers. Our ultimate objective is to help students reach the point where they question writers as they read. Questioning writers is a somewhat difficult and complex concept because writers usually are persons the reader does not know, and the reader has to interact from a distance. (See model, Figure 1.) Therefore it is suggested that we begin their practice in questioning at the primary level-with the student's self. Our plan is to telescope questioning skills from self, to peers and other persons known by the student, then to writers, unknown persons whose ideas the student can know only through the printed word, whether the author wrote the words last night for this morning's newspaper or wrote them centuries ago.

The plan is to introduce the skill of questioning by asking students to apply questioning strategies to the present that revolves around themselves-much as fledgling reporters are trained to observe, to deal in evidence, to weigh sources, to describe, to report, to interpret, to spot assumptions, to evaluate against a standard, even to make judgments, to predict and to work with parts to see if they fit into a jigsaw of events. Some suggested categories of questions are presented in Figure 2. The labels certainly are not sacred cows. Their use is for the purpose of holding concepts still long enough for students to take a look at them. They, or other categories the reading teacher might create, are directly teachable.

A look at the other columns in Figure 2 reveals that the questions differ horizontally only because of a shift in focus - from I in Column 2 to you in Column 3 to he in Column 4.

Beginning in Column 2 the student initiates his prac-

Figure 1

MODEL FOR THREE LEVELS OF RELATIONSHIP

IN WHICH STUDENT MAY PRACTICE

SKILL OF QUESTIONING

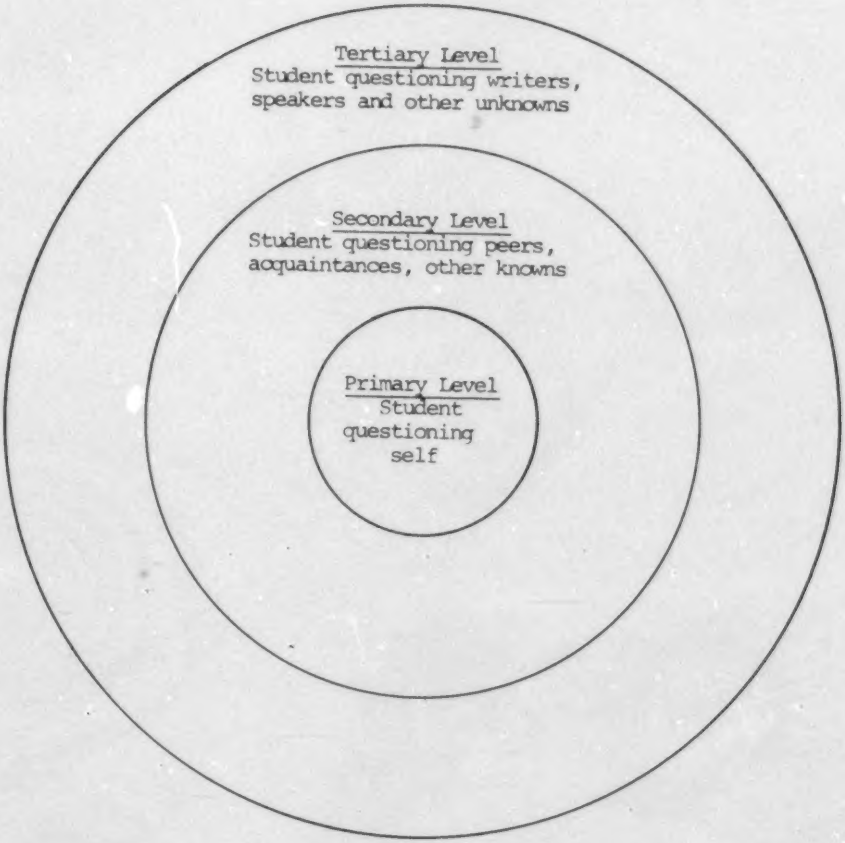
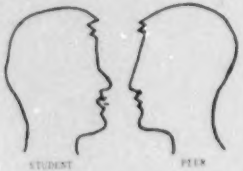


Figure 2

TELESCOPING QUESTIONING FROM SELF, TO KNOWNS, TO UNKNOWNS*

CATEGORIES OF QUESTIONS	Stage I SAMPLE QUESTIONS FOR SELF	Stage II SAMPLE QUESTIONS FOR PEERS, OTHER KNOWNS	Stage III SAMPLE QUESTIONS FOR WRITERS, OTHER UNKNOWNS
DESCRIPTIVE	What is it like? What kind of a situation is it? What do I see? Smell? Etc.?	In Stage II student shifts emphasis from "I" to "you" and practices questioning on the various categories with peers and others in his life. For example, in the experimental-methodological category, questions would be "How could you test your guess? How could you explain this to someone else?"	By Stage III the student's practice in questioning himself, peers and other knowns has established the concept that while reading he questions the author in like manner.
COMPARATIVE	How are two or more things different or alike? Etc.?		
HISTORICAL	How did things get the way they are? What's behind what I see?		
CAUSAL	What is the reason for such a thing? Why? What is the result? What do I believe this or that is true? Why does this make sense to me? Etc.?		
EXPERIMENTAL-METHODOLOGICAL	How could I test my guess? How could I find out? How could I do this? How could I explain this to someone else? Etc.?		
PREDICTIVE	What will it be like ten years from now for me? Etc.?		
EVALUATIVE	What is good, better, best? What do I like about it? What do I dislike about it? What yardstick am I using? Etc.?		
APPLICATIVE-CREATIVE	How is this relevant to my situation? How can this be changed to fit my situation? How would I have done this? Etc.?		

*This schema is an extension of the work of Dr. S. N. Cummings, Arizona State University, Tempe, Arizona

tice by questioning himself, first using the simple questions offered and then creating his own in each of the categories. When he achieves some skill in questioning himself, he should move to the next level and practice questioning his peers, acquaintances and other known persons, again creating additional questions in each of the categories. When he acquires some facility at this level, he is ready to apply his skill by questioning writers and others outside his sphere of personal cognizance. The third level is pay dirt, both for the student and for reading teachers committed to helping students become lifelong questioners of the printed word.

A Behavior Management Program for Teaching *

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In the past, courses in introductory psychology, behavior analysis, and college study skills have been offered at the university or college level according to the principles of behavioral psychology. Keller (9) reported that teachers may be more effective if they employ contingency management in their courses. McMichael and Corey (11) demonstrated that contingency management in an introductory psychology course produced better learning. A self-paced and programmed course in behavior analysis, designed by Lloyd and Knutsen (10), illustrated that strategically applied reinforcement within a curriculum of small, clear-cut sequential steps can elicit "independent work" of high quality from university students. Hornstein (8) has demonstrated that college study skills and time management can be taught in a sequential manner, with student para-professionals systematically reinforcing appropriate study behaviors in students.

These experiments lead to the question of whether behavior management can be employed in a college English course designed to "repair" or "develop" the student's skills in the written language. Such courses should enjoy great success; yet, according to a 1965 survey of two-year college English teachers (14, p. 54), 35-40 percent of the respondents were pessimistic about whether remedial English could help students in general. Furthermore, in about 75 percent of the reporting colleges, the grammar that is presented in the remedial English course does not differ from that in the regular English

*This study was undertaken at Mount Royal College, Calgary, Canada. It was continued after my moving to Edmonds Community College, Lynnwood, Washington. It could not have been undertaken without the expert advice of Professor L.A. Hamerlynck, University of Calgary. It could not have been completed without the assistance of Professor Barbara Morgridge, Edmonds Community College.

course. In the other 25 percent of the cases, one encounters such comments as "more basic," "high school level," "more time devoted," "more drill." Only 3 percent indicate that some special approach, such as an application of structural linguistics, is being tried. (14, p. 52)

Although this survey is some six years old, the indication is that innovation is in order. My own bias is not in the direction of linguistics but of rhetoric. Hence, a writing course was designed to improve the student's writing skills by means of structured curriculum containing sequential writing tasks. Academic reward was contingent upon successful completion of these skill-steps; reinforcement came in the form of points (a "token economy") and from social reinforcement by instructor and peers. By using behavior management tactics, a course in introduction to composition was implemented.

To teach is to structure situations so that the student discovers his environment within or outside himself. The teacher, then, shapes behaviors, or in the words of B.F. Skinner (13, pp. 66-7):

> By selecting responses to be reinforced he improvises a program of contingencies, at each stage of which a response is reinforced which makes it possible to move on to a more demanding stage. The contingencies gradually approach those which generate the final specified response.

Another way of saying this is that the student exerts "trial-and-error" behavior which tends to be shaped by the teacher's rewards (2, p. 32). While it is relatively easy for teachers to control such contingencies in the classroom, it is difficult to research them because of the free-wheeling setting and the inexactness of measurement. One cannot, therefore, class such studies as "behavior modification," which, in the words of Riley (7, p. 104), plays to two audiences, ". . . the therapist's audience which requires results, [sic] and the researcher's audience which requires quality research." Behavior management, as it is applied to this project, is more a teaching than a research term: it means amplifying desired behaviors by structuring curriculum and reinforcing appropriate responses by students.

According to the course text, Casty's (3, pp. 1-4) A Mixed Bag, the student is to become aware of the parts of the whole, the details that account for the effect first; then he is to learn to order parts or details; and finally, he is to come to conclusions or make judgments by manipulating parts, details, and methods of development. As the course was taught, rhetorical proficiency was staged in small steps leading from the what and how of mediating experience through the when, where, why, and how much of organizing thoughts to a

hopefully self-rewarding complex of behaviors which Fantini and Weinstein (5, pp. 50-55) call the avenue of expression for the student's own thoughts, feelings, and attitudes.

The subjects were community college students who had been advised, but not coerced to enroll in Introduction to Composition. They had demonstrated rhetorical or mechanical weaknesses in the use of the written language, having taken an essay style placement examination. The students knew that the course bore credit, was transferrable, but did not meet any portion of the English requirement for graduation.

On the first day of class, students received the following materials: a manila envelope containing a course explanation, a syllabus which was quite specific, a contract, a mimeoed sheet for recording points, a list of bonus activities, approximately fifteen tag-board tickets, a file folder containing a check list for required writing tasks, and a sheet of graph paper for charting progress. The instructor then asked the students to write certain information in the file folder, peruse the check list, and notice the achievement chart, which could accommodate more than 4000 points over a ten-week period.

Next, the class read the course explanation together in order to discover the rationale of the course, its objectives, and requirements. The course was to be offered according to proven principles of behavior; the student could predict his own grade; he would not be required to attend class but would be awarded points for doing so (the tag-board tickets were for his admission). Furthermore, he was informed of a sequence of structured assignments ranging from simple to complex. Besides these required tasks, there would be an assortment of bonus activities which were less directly related to writing fluency, yet which would be worth points. The student could complete any or all of them and could contract to complete other work which would strengthen his special weaknesses.

The explanation stated that the student would have to complete all of the required tasks to a minimum standard of achievement, as judged by the instructor, and that he would be awarded a minimum number of points for each step so completed. But the student could revise as often and as extensively as he deemed profitable, until he had gained the maximum number of points designated for that task. He had to abide by deadlines for first drafts, but beyond that, he could work pretty much at his own pace. He had to complete all required tasks to a minimum standard; then he could revise in order to reach the maximum. He could also do bonus activities. Depending on his motivation he could acquire 3000 points for a "C", 3500 points for a "B", and 4000 for an "A." If at any time during the quarter he wished to do so, he could challenge the course for a grade of "C." Finally, if at the end of the quarter he thought he could still improve his performance, he could opt for an incomplete grade and have 30 days in which to revise required tasks in order to raise his point total.

He had to agree to the following terms:

CONTRACT

English 100 is designed to assist the student in reaching rhetorical fluency. While the brunt of the course involves writing expository prose, some bonus suggestions are only indirectly related to writing. This program, based on sound behavioral theory, will assist you by structuring the learning situation and by reinforcing your appropriate writing and study behaviors.

The major goal of English 100 C, then, is this: GIVEN A STUDENT WHO HAS DEMONSTRATED SOME DEGREE OF DEFICIENCY IN THE CONVENTIONS OF WRITTEN ENGLISH, THAT STUDENT WILL BE ABLE TO COMPOSE A THREE TO FIVE HUNDRED WORD ESSAY, REASONABLY FREE OF MECHANICAL ERRORS, WHICH EMPLOYS VARYING METHODS OF RHETORICAL DEVELOPMENT.

We, the undersigned, agree to the following terms and conditions:

1. That, in order to have completed this course, I will write a standardized test, pre-test and post-test forms.

2. That I will complete all ten writing tasks to a minimum standard of acceptance, in the opinion of my instructor.

3. That I will fill out a class evaluation at the end of the term.

4. That I may earn additional points, or bonus points, by completing tasks suggested by the syllabus or by the instructor.

5. That I may earn bonus points for depositing attendance chips.

6. That all of my writing assignments must conform to "Form for Papers."

7. That I am responsible for charting my progress and keeping track of cumulative points.

8. That all my writing assignments must be in my class folder before I get my grade.

9. That I may earn a grade of "C" by getting 3000 points, "B" by getting 3500, and "A" by getting 4000.

10. That, if I am dissatisfied at any time during the course, I can challenge the course; if successful, my challenge will result in a grade of "C" without further class attendance or assignments.

Signed _____

As has been mentioned, the required writing tasks were sequenced in three broad steps: noticing details and transferring them into compositions with perceptible beginnings, bodies, and outcomes; using methods of development to fulfill writing purposes such as giving directions, explaining a phenomenon, and reacting to an argument; and relating ideas according to various modes of discourse such as analysis, classification, persuasion, and definition. Insofar as it was possible, each assignment was structured to engage the student's own background of experience, assist the student in building meanings and relationships, and promote the student's extension of skills, ability, and interests, as described by Hafner (6, p. 29).

Two important facets still need to be described: reinforcement tactics and reinforcement of "progressive approximations" (13, p. 16). The business of attendance may serve to describe how reinforcement, at first as constant as possible, was faded to intermittency. For the first two weeks, approximately, the student exchanged a tag-board ticket for points which were immediately added to his point total. Then the tickets became extraneous, and the student merely credited himself with the correct number of points each time he attended. Finally, points were calculated by the week. Also, at first, all tasks bore points: writing the standardized tests, keeping the file folder up-to-date, etc. These points were totalled up daily. Later the points were saved for a week at a time; toward the end of the term, points became a mere formality, most students having already accrued the number desired. Although a sort of "token economy" seemed to reign, the intent was to evoke "independent" work of high quality.

Requiring the student to complete each assignment to a minimum standard of achievement, but making it profitable for him to revise extensively and frequently, had important effects: the instructor found himself reading students' work with great care (which is only right!); the student, by means of successive revision, "modelled" (13, pp. 208-9) upon the teacher's own style, thereby improving his own prose style; and the student (and instructor) "overlearned" rhetorical and grammatical principles.

In The Technology of Teaching, Skinner (13, p. 19) says,

> Education is perhaps the most important branch of scientific technology. It deeply affects the lives

of all of us. We can no longer allow the exingencies of a practical situation to suppress the tremendous improvements which are in reach. The practical situation must be changed.

The program under examination did change the practical situation, if only because it attempted both to take into account just how organisms learn and to capitalize upon that process. It tried to respond to Skinner's own questions:

1. What behavior is to be set up?

2. What reinforcers are at hand?

3. What responses are available in embarking upon a program of progressive approximations which will lead to the final form of the behavior?

4. How can reinforcements be most effectively scheduled to maintain the behavior in strength?

Of 31 registrants, two never came to class, and three withdrew during the first week because of the course format. One other student stopped attending in the sixth week, probably because of illness in the family. The remaining twenty-five completed the course: 13 received "A," 3 received "B," 1 received a grade of "C." 7 students elected to take "I." There were seven "W's," and here it must be mentioned that the college has dispensed with "F's."

Student course evaluations were almost unanimously favorable. One student objected to the point system, another student suggested that the instructor get a pay raise, become head of the department, and have fewer classes to teach.

The standardized test which students took at the beginning and end of the course was the McGraw-Hill Basic Skills Writing Test. Since at the end of the quarter no alternate form of the test was available, students took the same form of the test at the beginning and at the end of the quarter. There are three parts: language mechanics (30 items), sentence patterns (26 items), and paragraph patterns (15 items). Whether an ability to recognize errors in composition can be equated with writing proficiency itself is debatable. However, among twenty students who were tested and retested, there was no statistically significant mean increase in recognition of errors in language mechanics, but there was a mean increase in recognition of sentence patterns and paragraph patterns well beyond the .01 level of significance. Of interest is the fact that of those who attended regularly throughout the term, eighteen students were directly engaged in the BRIDGE, the developmental reading, writing, and study skills center.

The behavior management program seemingly was a success; it is obviously difficult to establish that the treatment alone elicited the success. Measurement is indeed a problem

with any classroom project, as Baer (1, p.92) indicates:

> . . . the evaluation of a study which purports to be an applied behavior analysis is somewhat different than the evaluation of a similar laboratory analysis. Obviously, the study must be applied, behavioral, and analytic; in addition, it should be technological, conceptually systematic, and effective, and it should display some generality.

Insofar as the course did meet these criteria, it was successful; if I were to repeat the project, I would attempt to make the curriculum even more systematic, employ students to check exercises, etc., and develop some five two-week "mini-courses," each worth one credit. The student then would not have to wait for ten weeks for academic reward as he does in the traditional class; he would enjoy a great deal of individual attention; he could take any or all of the sub-courses even if he weren't interested in the regular composition sequence; and he could pace himself to better advantage. Ultimately, an almost infinite number of packaged courses could be made up for more relevant, effective classwork for students of remedial or developmental English.

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From ADAM to SAM: Academic Diagnostic Motivation Service to Student Academic Motivation Center

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Los Angeles Pierce College

Los Angeles Pierce College, like many other colleges, has the problem of an increasing drop-out rate and the lack of motivation in the capable student who is not performing to capacity. I was called to the Dean of Instruction's office and asked if I would develop a program to find out why these students were not motivated and, when I found out, to develop techniques to innovate a pilot program using the Learning Center. As a result of the Dean's initial conference, at which time he gave me carte blanche, A.D.A.M. (Academic Diagnostic and Motivational Service) was born. After a year of talking with over 500 students, I returned A.D.A.M. to the dust and developed S.A.M. (Student Academic Motivation Center.) S.A.M. is still alive and doing well, serving the students at Pierce College. Now let's look at A.D.A.M. and find out who he was, what he did, and why he did it. Then we will look at S.A.M. and examine the reasons for his supplanting A.D.A.M.

Philosophy

One major reason for student failure is a lack of "Academic Intelligence" which is the know-how of utilizing "Academic Mechanics." The design of the "drop-in" service was to rescue the academically distressed student with an immediate "First Aid Program." The pilot program's aim was to keep the student who received good grades in high school from becoming a college drop out and to help motivate the already enrolled college student.

Background

The Learning Center is the repository for programmed instruction materials and semi-teaching materials as well as audio-visual materials. During the summer of 1969, discussions with the staff of the Learning Center revealed that programmed materials were not being used by our faculty. The A.D.A.M. Service was established to help increase the use and circul-

ation of prepared instructional material.
The Learning Center served as a hub for A.D.A.M., being centrally located on Campus. A.D.A.M. was a worthy service to students, and would attract students not only to itself but also to the Learning Center, Dial Access Room and College Library.

Objectives
The objective of the program was to diagnose the student's academic problem and provide him with constructive materials. Through interviewing and working individually with each student, A.D.A.M. desired to unravel the student's problem, place it in proper focus, and help him to work more effectively within the scholastic environment at Pierce College. A development of self-motivation in each student was desired. At Pierce, students with lower aptitude scores or achievement test scores do graduate. Why don't all students graduate? One reason may be that the student has not developed his "Academic Intelligence"---that is, he lacks the knowledge or experience in using effective learning techniques in reading, thinking, speaking, listening, writing, and taking notes. A.D.A.M. emphasized and reinforced such aids and skills and, in other cases, served as an ombudsman referring students to an appropriate resource.

Procedure
A flyer was distributed to the faculty and the student body announcing the A.D.A.M. Services. Students were permitted to "drop in" or make an appointment. They were permitted a total of 3 or 4 interviews. The first interview was non-directive, intended to permit the student to "open-up". The following sessions dealt with the direct problem and gave the student a "prescription for academic success." Small group sensitivity sessions were held with students who had a common problem.

Final Analysis
A.D.A.M. succeeded in motivating students, providing them with a constructive prognosis for identified needs. These needs, as developed through short term interviews, appeared to indicate that Pierce College should reasonably provide the following services to the students:

1. vocational counseling
2. referral services
   a. financial
   b. employment
   c. counseling
   d. vocational information classes
   e. study skills classes
   f. college orientation classes
   g. programmed learning materials

Furthermore, it was indicated that Pierce should offer additional services to non-students on campus. Additional services include:

1. Expansion of the program to more professionals and paraprofessionals.
2. A media service for the faculty to assist them with the latest techniques of subject content presentation.

The Birth of the S.A.M. Center

A.D.A.M. was active for one semester until the birth of S.A.M. last February (1971).
S.A.M. Center is staffed by two professionals and three paraprofessionals in a developmental program geared to bring full utilization of Learning Center materials and A.D.A.M. type services.
The staff is currently working with the faculty to develop programmed materials. The ultimate goal is to establish more courses via the C.I.S. (Coordinated Instructional Services). Courses such as Music Appreciation, Art, History, Vocabulary, Listening Skills, Remedial Math, English, etc. are to be administered through the S.A.M. Center.

Appendix A

STATISTICAL REPORT ON A.D.A.M. SERVICES 1969-70
(Academic Diagnostic and Motivational Service)

L. A. Pierce College, Woodland Hills, Calif.

A. Student Participation and Related Services

1. Total Number of Students Interviewed.....250 (application on file)
2. Total Number of Interviews Conducted.....750
3. Average Number of Interviews Per Student.....3
4. Total Number of Days in Operation.....157
5. Unrecorded Number of Interviews "Open Door Policy"..100
6. Approximate Number of Interviews with Teachers.....50
7. Students Participating in a Weekly Study Group.....8
8. Number of Students using Programmed Learning Materials.....100

B. Analysis of Interview Content

1. Method of reading textbooks.....240
2. Note-taking techniques.....240
3. Student-teacher orientation.....100
4. Library Orientation and Term Paper Preparation.....25
5. Dial Access Orientation.....10
6. Test Taking Techniques.....150
7. Daily and Overview Assignment Scheduling.....159
8. Vocational information and discussion.....125
9. Motivation, goal setting and self-confidence discussion.....225
10. Concentration techniques.....125

C. Disposition and Referral of Student Participants

1. Health Center, Physical exam.....14
2. Health Center, Mental Health Clinic.....51
3. Education Class Tutor Program.....21
4. Adam Staff Tutor Program.....10
5. Remedial Classes recommended.....149
6. Counciling Office.....26
7. Financial Aid Office.....25
8. Varied Community Agencies and Services.....29
9. Community Vocational Services.....50
10. Campus Veterans Office.....10
11. Campus Center Club Activities.....6

D. A.D.A.M. Related Activities

1. Developed tapes for Dial Access (pertaining to study skills)
2. Conducted four "How to Prepare for Exams" lectures
3. Supervised the "Exam Jitters Room" during Exam weeks
4. Developed and distributed "Study Aid" hand out materials
5. Conducted four "beginning of the semester 'How to Study'" lectures
6. Developed 10 week "Study Skills" class
7. Attended weekly seminars with the counseling and mental health staffs
8. Recommended (now in operation) Psy. 30 class (vocational testing etc.)
9. Developed "Give-away Library" from the school library discards
10. Emergency teacher referral service for students with urgent problems.

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The EOP Tutor-Work Program in the Community College

Jess L. Samuels
Los Angeles Trade-Technical College

INTRODUCTION

My role this morning is to talk about the E.O.P.S. Tutor-Work program and its problems in the Community Colleges of California. In this talk, I will bring out some of the problems of the disdavantaged students who are handicapped by language, social, and economic needs. I feel the community colleges must take the opportunity to support and meet their responsibilities to their minority and disadvantaged students, to the facilitation of their successful participation in the educational pursuit of college. I will add, I do believe that the community colleges should be dedicated to serving the community by exerting leadership and catering to the needs of the community, providing programs to fill those needs, and evaluating the effectiveness of these programs.

I believe new directions brought about by the infusion of new students and faculty into any college should necessitate formulating new goals and objectives to accommodate the changing character of any institution by working with the community through various agencies, committees, and organizations including: advisory committees, representatives of business, church groups, offices of community services, and museum groups.

College participation in various off-campus activities connected with these organizations and committees will enable them to keep close contact with developments and changes in the nature of the community.

ROLE OF THE E.O.P.S. TUTOR-WORK PROGRAM AT LOS ANGELES HARBOR COLLEGE

The primary role of Harbor College's E.O.P.S. program is to make special efforts to recruit and retain minority and low income students in Harbor College. In accordance

with the Guidelines as set forth in S.B. 164 in Title V, etc., this program is designed to provide financial assistance to students who are handicapped by language, social, and economic disadvantages.

In order to provide for this positive encouragement, classes designed to eliminate deficiencies, eliminate personal hang-ups, strengthen weaknesses and discover and develop latent talents, have been provided for.

Supportive services in the form of psychological counseling, peer counseling, tutoring, etc., have proven to be invaluable aids to assist the student to reach a competence, personal and academic, that will ensure success in future college courses.

Many students come from Spanish-speaking homes, where English is the second language. These students may be handicapped by virtue of long-standing use of Spanish only. As a result, English grammar is difficult to master, and this is compounded by being tested in English, with a predicted low score resulting. Many Samoan students enroll with extremely limited educational background, plus the added burden of a poor command of the English Language.

Many of our minority students have received an inadequate educational background because of the racist attitude that many high school counselors have. That is to say, that minority students are often tracked into vocational training automatically because of their ethnic make-up. Today these young men and women from the ghettos, barrios, and reservations demand access to their own futures; this they cannot be denied.

We know there is widespread recognition of the pressing need for special programs to aid the disadvantaged minority and low-income students, at the time there is pressure to charge tuition and to raise admission to California's four-year-colleges.

The E.O.P.S. programs are caught between the two horns of this dilemma, between the policies of inclusion and exclusion. I believe that if less privileged groups are given equal educational opportunities that in time they will make the same advances socially, economically, and educationally that mostly white groups made in previous eras.

For most of this discussion I have placed the educational deficiencies as the greatest cause for disadvantaged minority student's difficulties.

STUDENT SERVICES: TUTORIAL PROGRAM:

PURPOSE--will be to help disadvantaged students acquire the prerequisite attitudes, knowledge, and skills that will allow them to better attain their educational and/or vocational goals and to better self-actualize.

OBJECTIVES

To provide tutors for disadvantaged students and stu-

dents on probation in order that they may attain at least a "C" average in their course work.

To decrease drop-out probability of this group of disadvantaged and aim for a 75% retention.

To provide individualized remedial reading services in order to improve their scores in reading comprehension and speed of reading tests.

To provide small group peer-counseling.

To establish in-service training for peer-group members qualifying them to tutor and direct small peer-group counseling sessions.

To assign peer counselors to work with professional staff counselors and accompany them to high schools on informative missions regarding Harbor College programs.

To recruit alumni and faculty to volunteer services in the study skills center where tutoring programs will be concentrated.

To train tutors in Education by requiring them to enroll before they can be hired as tutors.

To hire a student coordinator who will over-see the tutorial programs under the directorship of the E.O.P.S. director.

ACTIVITIES PLANNED

E.O.P.S. students will receive individualized tutoring from peer tutors in subjects they are weak in as well as remedial aid in basic reading skills. They will also have available to them tutoring from college graduates and upper division state college students of like-cultural background from the community.

ETHNIC SURVEY AT LOS ANGELES HARBOR COLLEGE

Enrollment

	Fall 1969	Fall 1970
Day	5502	6016
Evening	2350	2392
Total	7852	8408

ETHNIC DISTRIBUTION

	Fall 1966	Fall 1967	Fall 1968	Fall 1969	Fall 1970
White:	%	%	%	%	%
Spanish surname	6.5	6.4	9.7	11.9	10.8
Other white	78.1	77.0	68.2	69.1	69.7
Non-white:					
Negro	8.6	10.0	12.1	8.2	10.1
Chinese, Japanese, Korean	5.4	5.2	9.8	8.8	7.3
American Indian	0.2	0.2	0.2	0.6	1.0

Other Non-white	1.2	1.2	*	1.4	1.1**

*Included in other white.
**A district card was used which did not have an "other non-white" category. The student who felt he was in this category had to write the ethnic group on the card although no space was allowed for this.

Total				7852	8408
Minority %	21.9	23.0	31.8	30.9	30.3
				2426	2547

The following information was obtained from a survey given to students at registration for fall, 1970:

	Responses	%
A. $3,000 or under	587	9.9
B. $3,001 - $6,000	1,436	24.0
	2,023	33.9

The above answers are out of a total of 5,920 students. The total indicates that 34% have an income of under $6,000.

Harbor Area High Schools

Senior High School	Spanish Surname	Total Enrollment in School
Banning High	1141	2521
Carson High	632	3321
Narbonne High	447	2751
San Pedro High	699	3222
Total Senior High	2919	

Junior High School

Carneigie Junior High	321	1488
Dana Junior High	556	2122
Dodson Junior High	398	1935
Fleming Junior High	311	2123
White Junior High	537	2558
Wilmington Junior High	853	2084
Total Junior High	2976	

Los Angeles City Unified School District
Racial and Ethnic Survey--FALL 1969

Measurement and Evaluation Section
A.O. Sarinana

ETHNIC BREAKDOWN OF EOP STUDENTS

Black	24
Chicano	37

Philippino	2
Oriental	2
Samoan	12
Caucasian	9
Total	86

Number of grants last fall:

EOP	86
EOG	20

Number signed up this spring:

Not available

Number of students finishing fall semester: 117

Number of tutors: 71

Number of tutees: 120

Night Tutees: 20

Number of people not in EOP or EOG that have benefited by tutoring: 441

LOS ANGELES HARBOR COLLEGE
E.O.P.S. S.B. 164
GUIDELINES FOR EOP

1. The student must be enrolled in 12 units plus P.E., if required, to remain eligible.
2. The student must file an application every semester to get money.
3. The student must prove financial eligibility by attaching income tax statement or welfare report.
4. If the student is under 21 and not married, the form must be signed by a parent even though he or she does not live with them.
5. The student must answer all questions on the form by some reply.
6. The student must bring the application and income tax form to the EOP director personally.
7. All L.A. Harbor College students working in the EOP program in any capacity must carry 12 units or 12 and 1/2 units, if P.E. is required.
8. If working in the EOP program in any capacity, the student must complete and file in the EOP director's office a weekly time card (signed by immediate supervisor) no later than 3 p.m. on Friday of each week.
9. Students will be paid only for the hours actually worked. No hours worked over those assigned will be paid for.

10. To continue in EOP every student must attend specified guidance and counseling sessions set up each semester.
11. Students not maintaining a "C" average in subjects must be tutored at least 2 hours a week or be dropped from the program.

The success of Los Angeles Harbor College's E.O.P.S. program has been the complete and highly signific[illegible] commitment of the faculty, students, and administrat[illegible] to the program and its philosophy manifested by the support given it in the following ways:

1. one full-time staff position assigned to the Director of EOPS
2. one full-time staff position assigned to the Director of Specially Funded Projects and College Research.
3. one-third time of an administrative intern
4. one-half time of the Dean of Student Personnel
5. two new counseling positions (funded partially under VEA)
6. volunteer faculty time for tutoring
7. volunteer faculty time for program and course development
8. community personnel
9. student body of Los Angeles Harbor College--use of loan funds to supplement E.O.P.S. grants--hospitality fund.

CONCLUSION

I believe Community Colleges should evaluate programs of other colleges for disadvantaged students.

There is a need to change the educational programs for minority students. Curriculum must be developed that will place these disadvantaged students in proper perspective with their past and their contemporary history. Stress should be placed on these students.

The disadvantaged student has to understand and appreciate his own and other cultures.

We must establish overall policy favoring increased activity in special education of the disadvantaged. Community colleges should participate in such program development and provide financial aid for such students. If we continue exclusion of these disadvantaged students from America's economic and social life, of which this exclusion is the direct result of racial barriers rather than lack of ability, motivation, or aspiration on the part of these disadvantaged students, the survival of this country is threatened.

I am embarrassed and ashamed for those who think and act in terms of color.

Cultural Linguistic Approach to the Teaching of Reading

Paul H. Schoenbeck
Mira Costa College

What is a table? A kitchen table? A Chippendale Table? A pool table? An arithmetic table? A water table? An operating table? A picnic table?

Whatever your mental response was to the question, "What is a table?" that response will have been determined by one of three processes or a combination of them:

1. Your most recent association with the concept embodied in the geometric pattern,

   T-A-B-L-E

2. Your past cultural associations with the word, or,

3. The cognitive processes you employed in trying to ascertain precisely what it was that I was asking. Did you immediately supply an adjective to enable you to semantically clarify the word? Or did you think of it psycho-linguistically, historically, phonemically, or simply in a plain context?

Whatever process or processes you employed, you cannot escape the fact that your cultural association with the word was a significant contributor to the response you actually had.

Yet, how often do we realistically take into account the cultural background of the people we are teaching as well as the cultural aspects of language itself?

Let's take a typical community college remedial reading class for example.

Unless it is homogeneously grouped, we will probably find reading levels from functional illiterate to grade level 10. These levels, of course, have been determined by standardized tests which assume that everyone tested is of the same cultural, ethnic, and socio-economic background.

Therefore our original placement is probably quite inaccurate. Nonetheless, we blithely arrange our groupings in the class on this basis. The vocabulary for each level has been quite well determined so it presents no problem to start instruction. The fact that, in addition to various levels of achievement, we may have underprivileged Whites, Blacks, Chicanos, Samoans with completely different cultural backgrounds seems to be of no import. We are going to make WASPS out of all of them.

What approach shall we use to teach vocabulary and hence reading improvement? Strictly a semantic approach? But what do we do about words that are not full, like "lead" or "bear" which need syntactic arrangement to have meaning and/or pronunciation. Or shall we use a linguistic approach? But, which one? Historical linguistics? Phonemic linguistics? Psycholinguistics? A transformational generative grammar approach?

The basic problem appears to be that we attempt to isolate the various facets of the process of reading without looking at reading as an entity of communication in itself. The printed page can have no meaning for anyone unless he has the physical and mental ability to perceive correctly that which is printed and then through the use of his cognitive powers to utilize that information. But, if his conceptualization of what he has read is not what was intended, what is at fault?

Cultural background and experience cannot be ignored. Concepts of love, morality, justice, concrete versus abstract, religion, ad infinitum, are going to affect the thought processes concerning the same material. Yet, when we ask for a regurgitation of the material, we expect it to be WASP interpretation and simply count it as incorrect if it isn't.

What might be a solution to this problem?

Last year at Mira Costa we experimented with an idea that is basically not far removed from the elementary school language-experience approach. Regardless of the level of the student, all new vocabulary was based on what he had either written himself or what he had dictated. This material was then rewritten, following the concept entirely, but expressing it with a new vocabulary and in correct grammatical form. The new words were approached in various ways. If it was a semantically "full" word (hat), the variations were shown by use of the proper adjectives. If it were not "full," it was shown that syntactical placement gave it its value. This also allowed for the stress of words already known, to be properly placed syntactically. (Example-I walked downtown last night.) Insert the word "only" in every position except between "last" and "night". From a linguistic standpoint, the words were studied as morphemes, phonemes, or psycholinguistically. For those words having historical structure, it was an easy step to use the dictionary for the etymological background and the

concept of metaphorical change (in many instances from concrete to abstract).

The actual practice in reading took place when the student read what he had expressed originally, except that now he was using a new vocabulary to express that concept. We were not attempting to teach him new concepts as well as new vocabulary, but rather one thing as a time. Outside reading (slightly above his level) was then slowly introduced and utilized in the same fashion. If a new vocabulary word was in the material, the attempt was always made (1) to associate its meaning with something in the student's background so he would have a ready-made association and (2) to employ whatever technique that was usable with that word.

This is indeed an over-simplification of the process. It is time consuming and stretches the bounds of the imagination. Yet, the effects are most salutary.

Using standardized tests, the gains were phenomenal. In our regular individualized remedial reading program, we have been averaging approximately two-years gain per student per semester. The gain we achieved with the Cultural-Linguistic approach is nearly double - or four years per student.

Yet, we realize there are many inadequacies in this approach even though statistically it is impressive. Let's examine some of the possible misconceptions, inadequacies and fallacies that could result from this experimentation.

Achievement is one of the prime goals of the reading center at Mira Costa. All of us are aware of the three levels of reading - proficiency, challenge, and frustration. Remedial students are started at the proficiency level because we do not want to perpetuate the pattern of failure that they have undoubtedly experienced. As they progress slowly into the challenge level, success or achievement is within their grasp and they usually attain it. However, as they do progress within the confines of the reading center, what happens to them in their other academic pursuits? But probably more important, how does this student equate continued failure in the "real" world with his "supposed" success in the ability to read?

In other words, we can teach a "normal" student the intricacies of the reading process from the most basic word recognition skills to the most sophisticated syllogistic reasoning. But if he does not possess the background to utilize that information, have we really helped him, or have we given him a greater frustration than before? Too often the mere acquisition of the "skill" of reading seems to instill in these students the concept that they are now ready to embark on the most sophisticated of academic careers. Just because we know "how" to read a book on nuclear physics does not make us an Enrico Fermi.

Even though a Cultural-Linguistic approach to the teaching of reading may be superior to many other methods in teaching "skills" and vocabulary, it does precious little

to enhance the acquisition of background material so desperately needed if these students are to achieve in a transfer program at even in a sophisticated vocational-technical program.

The Cultural-Linguistic approach can be one additional method for the improvement of the teaching of reading. Yet, if it is to have relevance for the group of students whom it can most benefit, we must incorporate some means of assuaging the cultural "gap" that produced the disparity originally. Courses designed to give the needed background material which will utilize the skills learned in the reading center are needed. Without a "total" program for the "remedials," we are like the parents who teach their youngsters how to use a knife, fork, and spoon but fail to give them food.

Sub-cultures, a term I personally abhor, must be given the opportunity to utilize their cultural backgrounds in understanding the dominant WASP culture. Only insofar as a member of a minority can identify with the majority, in light of his own background, can he fully utilize his potential to succeed in an otherwise alien environment.

Strengths of this Approach

The advantages of the Cultural Linguistic approach may be itemized as follows:

1. It provides an opportunity for the student, regardless of background, to learn new vocabulary in light of his own experience.
2. It provides an opportunity to teach basic rules of sentence structure, spelling, capitalization, and punctuation in an informal, yet meaningful way.
3. It provides an opportunity to enhance, not just reading, but all other facets of communication including listening, speaking, writing and thinking.
4. It provides a method for the student to use the idiomatic expressions endemic to his culture, but yet provides a means to learn other acceptable means of expression that will be more readily understood by a greater number of people.
5. It provides the opportunity to the student for self-motivation in that he is dealing specifically with things that are of interest to him.
6. It provides the opportunity to widen the spectrum of interests of the students as new vocabulary and new concepts are introduced.
7. It provides the opportunity for the student to use his cultural background, whatever it may be, proudly. In other words, he begins in an emotional environment where he knows he can succeed. His culture then, rather than being a handicap, becomes the keystone to his further education.

For those of you who might want to acquaint yourself more fully with linguistic concepts as they pertain to

reading, I have added a bibliography of must reading at the end of this paper. The article cited in the Journal of Reading also provides an excellent bibliography in this area.

In summary, what we have attempted is to blend the best of semantics, linguistics, and the basic skills of communication with the cultural background of the individual. What is the strongest single asset we have in the individual student? His present-day perception of life as he sees it and his ability within that framework to communicate. Rather than disparage or attempt to destroy it, let's enhance it to his advantage and to ours.

A table "ain't" necessarily a Chippendale to everyone.

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But We Did That in High School

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Integrative Learning Systems

Over the past two months it has been my task to study most of the reading programs used in the elementary, junior and senior high schools of a fairly large school district. This is a most progressive district which has been cited on many occasions for using an eclectic approach in teaching its children to read. Thus, as I visited the elementary schools, I was shown an astounding variety of reading programs. I saw programs using the Initial Teaching Alphabet; Sullivan materials; Southwestern Regional Laboratory materials; Basal Programs (including each of the three series currently used in California and also the old Ginn Readers); Open Court materials, and a wide variety of supplementary materials. I was shown programs which featured staggered sessions; extended days; homogeneous grouping; heterogeneous grouping; cross-age tutoring; variable staffing, differentiated staffing and individualization. I saw pupils being taught to read by classroom teachers; reading specialists; Miller-Unruh teachers; English-as-a-second-language teachers; and by teachers of the educationally handicapped and of the educable mentally retarded. I also saw pupils being taught in the one-to-one or small group setting, and by other pupils, para-professionals, parents, and adult volunteers.

During my visits I saw good teaching and bad. I saw reading programs which received no special funding and others (Title I Programs) where three hundred extra dollars per year is focused on each pupil. I saw programs in schools serving primarily middle income children; in schools serving the poor; and in schools serving markedly different proportions of each. I saw reading classes and groups whose members were all from minority-ethnic groups, all from majority ethnic groups, or which were mixed.

What I saw then, was probably as true a representation of American reading programs as is to be found in the schools during the year 1971. And, after looking at the hard data and speaking with administrators, teachers, parents and pupils, I've discovered that nothing has really changed since

the '40's. Today, boys and girls are learning how to read (and not learning how to read) in about the same proportions as existed in like populations in the 1940's, the '50's and the '60's. Hence, in middle income schools (or groups) a pupil's chances of learning how to read at or near grade level are approximately 80%. Further, in any population, the number of boys who develop reading deficiencies compared to the number of girls stands at a ratio of about eight out of every ten. Among the children of the poor, however, the child of either sex who learns how to read adequately is still somewhat statistically abnormal.

Among administrators, teachers, parents, and pupils there appears to be no more understanding as to why a given pupil (or groups of pupils) learns to read, or does not learn to read, as existed in earlier decades. (In the middle '60's there appeared to be a movement away from the standard establishment ploy of always blaming the child, his parents, his social-economic status, or his ethnic group in cases where reading disability developed. To counter this movement, however, today's educators are embracing individualized reading instruction. Thus when a single child, or a group of children, or even a school full of children does not learn how to read, there is no guilt because "each such pupil is simply learning at his own rate.") Now what all this says to the clinician and to the college teacher of reading is: be of good cheer, the pipeline remains intact! There will remain a need for your services in the '70's. Indeed, Dr. James E. Allen is quoted in an article in the March, 1971, edition of The Reading Teacher, "That one-fourth of the nation's students have 'significant reading deficiencies.'" While in a March, 1971, speech in Los Angeles, Dr. Donald Emery, new director of the National Reading Center, said that the reading situation in America could only be considered a "disaster."

I also examined what was being done for those pupils, fourth grade through adult, who had not learned to read during the first three grades. That is, I studied elementary, junior and senior high school remedial reading programs.

What I learned when studying the typical fourth grade remedial reading program was that a youth who enters the fourth grade with a severe reading problem (reading two or more years below grade level) is no longer "learning at his own rate." Rather he is a clinical case. Such pupils are taught in small groups with techniques which are described as being both prescriptive and individualized. Typically, the early weeks in any fourth grade remedial reading program are spent in diagnosing what it is the pupils do not know. Teachers administer scales and tests so that they may learn the number of sight words each pupil knows. They also hope to learn what each one knows about word attack and the extent of each pupil's vocabulary and comprehension. Depending on his graduate school of training, a teacher will also probe his pupil's psychological or sociological being,

and if the resources are available, order visual, hearing, physical, and neurological examinations. This done, the teacher prescribes for each pupil an individualized course of instruction.

Because only the very rich can afford truly individualized reading instruction, what "individualized instruction" means in the fourth grade remedial class is that the teacher has prescribed for each pupil a course of instruction which may be pursued in isolation. Pupils are surrounded with high interest-low vocabulary reading matter in the reading lab, and there they enter into the world of the SRA kit, the controlled reader, the listening post, the Tachist-o-flasher or TACH-X, the graded editions of the Reader's Digest, and a myriad of other reading equipment and supplies which are either teacher-made or purchased at educational supply houses.

So individualized is the instruction in these programs that pupils are often found spending entire periods facing into little cubicals called "study carrels" which separate them from their fellows with wooden walls. Others spend their class time shut off from all distractions (or stimulation) because they are wearing earphones or are sitting in the dark. There are found in these programs teachers who pride themselves because they never once required that a pupil read to them from a book. Teachers in such programs are always seen to be busy, either moving about the room from pupil to pupil, or else calling one pupil at a time to their desks where a few minutes of truly individualized instruction is given.

Normally, most pupils who are assigned to fourth grade remedial reading groups read little better at the conclusion of the class than they did on the day they entered. (This is particularly true when such pupils are retested following a summer's vacation.) It is more than likely then, that he who is assigned to a fourth grade remedial reading program will also be assigned to a fifth grade remedial reading program. Indeed, although his teacher may change, there is every possibility that a pupil will be assigned to the same remedial reading room (or laboratory) to which he had been assigned during the fourth grade. During the fifth grade he will not be exposed to a single reading technique, nor to a single book, kit, or machine, which he had not used during the fourth grade. He will improve no more in reading ability during the fifth grade than he had the year before. He will go through the same program in grade six, by the way, and then will be ready to enter junior high school a proportionally worse reader than when he entered the program in the fourth grade.

I discovered that most junior high schools are well prepared to serve the individual problem reader and that such pupils are usually assigned for one period a day to either a remedial reading class or to a remedial reading laboratory. Nearly all junior high school remedial reading specialists

were seen to first administer numbers of tests and scales to their classes or groups. They ordered visual, hearing, physical and neurological examinations if such were available. Also, the junior high school remedial teacher's advanced credit work often permitted him to probe deeply into the psychological and psych-social "hang-ups" of his pupils and once done to prescribe individual programs of remediation for each.

Pupils in junior high school remedial reading programs spend most of each class period working alone in SRA kits, in high interest-low vocabulary reading material, in graded Reader's Digest, in controlled readers and other tachistoscopic devices, and with a myriad of other reading equipment and supplies which are either teacher-made or purchased from educational supply houses. Such pupils are often seen to be wearing earphones, sitting in a darkened room, or else facing into an isolation booth. Junior high school reading teachers are always seen to be very busy, either moving about the room from pupil to pupil, or else sitting at their desks and treating individually with one or another of their pupils.

The data indicates that, although there are victories, the typical pupil who is assigned to a remedial reading program in junior high or intermediate school reads little better after two or three years' assignment there than when he entered the program. Hence, as was the case in the elementary program, most pupils leave the junior high school program as proportionally poorer readers than when they entered.

On entering the senior high school's remedial reading program, a pupil is first given a series of scales and tests. Following, if money is available, visual, hearing, physical, and neurological tests are ordered. The teacher, augmented by the school's counseling staff, will probe deeply into the psychological recesses of each subject to study in depth the psych-social-sexual mechanisms which have caused his reading disability. This done, the reading team (or teacher) will prescribe for each pupil the individualized course of instruction he is to follow. Contracts are drawn up so that each pupil knows when to study the high interest-low ability reading matter; when to go to the SRA Kit; when to use the controlled reader; when to sit facing into his little cubicle and when to put on his earphones. The teacher in the high school reading laboratory is seen to be very busy at all times either in moving from pupil to pupil or in sitting at his desk where he "raps" with one pupil at a time. Data, generated by high school remedial reading programs (badly skewed because of dropouts and pushouts) indicates that the typical pupil will fall farther behind his fellows here than he did in either elementary or junior high school.

In the secondary schools there is to be found no formal remedial reading instruction except that offered in the reading class. Whatever reading instruction is offered throughout the remainder of secondary programs is found to

occur when a teacher tells his class, "Read the next chapter to yourselves and then answer the first twenty questions. Be sure and write out both the question and the answer."

But We Did That In High School

Today, the nation's community and state colleges, and even the universities must treat with numbers of pupils who, literally, cannot read. (Another long overdue paper which will deal with the even greater number of pupils who arrive at college capable of reading---by contemporary norms---but who have not (and will not) read anything other than material specifically assigned by a teacher.) Indeed, some colleges have units whose responsibility it is to go out into the community and actively recruit pupils who in other years would have not been considered capable of handling a college preparatory course of study in junior high school. Such pupils, by the way, are not usually "diamonds in the rough," ---the child from the slum who read the "Iliad" and the and the "Odyssey" at nine, while at the same time supporting his widowed mother and younger brothers and sisters by running numbers, and never missing a day at school---because most pupils of that gender are always snapped up by the prestigious private colleges and universities. Most of those pupils who are recruited to attend our publicly supported institutions then are the children of the poor, or the near poor, and then often impoverished readers.

Should the college he attends have a department of education, the problem reader is usually assigned there for remediation. There his instruction will be directed by the same people with the same philosophy as those who trained his reading teachers in the grades and secondary school. Where a school does not have a department of education, the new pupil is usually assigned to the English Department. (Just as secondary school administrators have long since accepted that anyone can teach English, so have college administrators accepted that anyone in the English department can teach reading.) Whatever the department, the name of the remedial reading program is usually disguised (i.e. Basic Communications or College Skill Center) so that no mention is made of the word, "reading."

Once he enters his new institution, the problem reader will find himself assigned to the reading lab. There, a highly trained staff will administer a number of scales and diagnostic tests and also arrange for a visual, hearing, and physical examination. Graduate students, the school's counselors, or the clinic's staff will be called upon to administer to each problem reader a battery of psychological instruments. Profiles concerning each pupil will be prepared with special attention paid to any evidence of emotionality or organisity.

When the testing is completed, the staff prescribes an individual program of remediation for each pupil. One may

imagine the feelings of a pupil as he is shown the library of high interest-low ability books which have been assembled for his use. We might picture his face as he discovers the study carrels, the listening posts, the SRA kits, the pacers, the tachistoscopes, and other materials which have been assembled for his use. Many pupils will be seeing these same kits, machines, controlled vocabulary material and reading devices for the tenth consecutive year.

Question: What kits, machines, controlled vocabulary material and other devices are found in the college reading laboratory or classroom which are not also found in the well-equipped elementary or secondary school, reading laboratory or classroom? The answer of course, is that there are none. Indeed, many secondary school reading laboratories are found to contain even more of these materials than may be found at the college or university.

This being so, is it not rather presumptuous for those at the college level to imagine that they---using exactly the same equipment and techniques as do their colleagues in the elementary and secondary schools---will be able to turn their pupils into effective readers in a period of months when all other teachers have failed for twelve years? Is there some alchemy at work in the college reading lab which, for the first time, permits kits, machines and gadgets to teach pupils how to read? Has the pupil changed? When he walks into the college reading class, has the impoverished reader "finally grown out ot it"? Do the college teachers have a secret which they are not sharing with their fellows in the secondary schools?

College teachers of reading, by the way, are charged with a far greater responsibility than are reading teachers in the earlier grades. The elementary or secondary remedial reading teacher need only improve on a standardized test a pupil's reading level one year for each year's instruction to satisfy his administrator or federal monitor---a year and one-half to cash in on a performance contract. Not so the college teacher!

The college teacher of reading is charged with making his pupils college-capable readers. Unless the institution in which he teaches is a fraud, the college teacher of reading must produce pupils who can handle Plutarch, Hemingway, Plato, Dostoevski, Freud, and Shakespeare and possibly all in the same quater. (If this list isn't relative, then the reader may substitute instead, Salinger, Baldwin, Sartre, Pasternak, Carmichael and Hamilton, and Tolkien.) This, of course, is only a part of the picture, for college-capable readers must also be able to handle the readings which are assigned by professors in such departments as mathematics, science, sociology and the like. No kit, machine, gadget, or abridged edition of The Tale of Two Cities ever has, or ever will, teach a pupil to read well enough so that he is capable of absorbing a first-class college education. "First Class" that is, not "the back of the bus."

It is the thesis of this paper that no way exists to make the typical college-age impoverished reader, college-capable in reading (within the time lock usually imposed) which does not have as its prime feature, reading in the several content areas. Further, such reading must be done under the direction of persons who are skilled in the maieutic method; in each such person's area of academic concentration and in appropriate reading material of that teacher's choosing. The development of the Formula Phonics Reading Program makes such a proposal feasible for the first time.

Formula Phonics

Formula Phonics is a broad spectrum reading system which has been developed by the author. The method's highly reliable word attack system is taught as a tension reducing mechanism so that pupils quickly learn that they can count on it whenever they need to unlock a word. With the problem of teaching word attack reduced to an easily learned five-step formula, the teacher may spend nearly all of his class time leading his group, or class, in a dialog based somewhat on the St. John's and University of Chicago's Great Books Program. Because a teacher may place his group in any reading material he chooses, and because the dialog is designed to range as far as the question demands; a group being taught the Formula Phonics way quickly develops concepts relating to, and the vocabulary associated with, a number of different disciplines.

To assure the success of every Formula Phonics Reading Program, Integrative Learning Systems, Inc., of Glendale, California, has produced a series of video tapes. The twelve video tapes are used to train every teacher, paraprofessional, clinician, or tutor who can be recruited to teach a group to read. The same tapes are also used to program, or pattern, those pupils who need to learn how to read or how to read better. In addition to watching the tapes, all teachers read Formula Phonics and learn there the strategies of reinforcement which are used in the word attack element of the program. As they are watching the tapes with one of their teachers, each pupil performs certain behaviors in his own copy of the Formula Phonics Reading Book. This same teacher then takes the group through five short articles in their Reading Book and then must move them into content area material. Even as this process is going forward, any other teacher who has seen the tapes, and has read Formula Phonics can be teaching all, or part of that group, (or any other pupils who have seen the tapes) how to read in the specified materials for the several content areas.

Notice the thrust. In Formula Phonics programs, teachers actually teach reading instead of using kits, machines, or controlled vocabulary reading matter to do the job. Certainly the video tapes don't teach pupils how to read. They

do assure, however, that any teacher who has seen them can teach any group which has seen them how to read in his own content area.

The Formula Phonics video tape reading program offers to the reading department in a college or university many advantages. The program will permit the reading department to focus the entire resources of the institution on the problem reader. The program permits a college to make a substantial saving since it no longer must buy kits, machines, controlled vocabulary equipment and the like. Finally, Formula Phonics permits teachers to teach and pupils to learn with dignity. No one taking part in a Formula Phonics program will have to say, "But we did <u>that</u> in high school."

Prescriptive Teaching Linked to a Learning and Tutorial Center

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Introduction

The search for a viable instruction program for college students has led our staff at San Bernardino Valley College to consider more closely the structure of knowledge and the specific associated skills of college subject areas. To teach a student how to learn means that the student learns how to acquire the knowledge of subjects he is taking. We emphasize this need to clarify objectives in relation to knowledge because reading instruction becomes so generalized. The reading program provides services to the college which are interdisciplinary so that reading skills unique to each content area are understood.

We wish to describe a program which emphasizes individual prescriptive goals. Students are essentially concerned about developing specific learning skills for specific bodies of knowledge. Our objective as reading instructors is to help students accomplish this goal in an environment that offers optimum individual contact between instructor and student, tutor and student, and student and student. This individualized prescriptive approach utilizes the wide variety of instructional media available.

The Learning Center is a people-centered environment, not a machine-oriented institution. A learning system cannot be effective if it attempts to function without man, but rather, as Charles Silberman has suggested, "It can only be a symbiosis of the two." Thus, man and the system become partners.

Teaching a college student to read involves teaching the levels of comprehension appropriate to various types of college subjects. Social science prose is often quite different from scientific prose. Our prescriptive program deals analytically with the range of comprehension levels implicit it college courses. Reading instructors must also teach a

student the special reading problems of the essay, poetry, and fiction. The student working in the Learning Center can devote more time to individual practice than is available in lecture classes.

In addition, the prescriptive program must include the diagnosis of other related areas such as vocabulary and speed and flexibility. Since we are particularly concerned about reading instruction in a community college, we must prescribe for a side range of reading problems which reach down to the most basic concerns associated with teaching adult literacy.

Therefore, our prescriptive reading programs require a comprehensive identification of skills within the taxonomy of comprehension. Diagnostic procedures must identify students' needs with maximum speed. Such a program requires a resource center not merely stored with software and equipment, but a totally planned curriculum organized into a system. Such a system must consider different teaching strategies involving instructors, tutors, and available technology.

The importance of such coordination of all these components is often overlooked in the complex process of developing a prescriptive teaching system. Our report concerns key elements of this system--diagnosis, prescription, instruction, and tutorial follow-up. The remediation in the Learning Center is concentrated in three areas: vocabulary, comprehension, and word attack. This reading system now functions as a model for the development of specialized reading skills programs in various college disciplines.

Diagnosis and Prescription

For many students some diagnosis of their reading problems begins before they enroll in a reading class, since all English professors give their students a reading test. In addition, all students take an entrance examination which provides a verbal score.

In reading classes, students are given diagnostic tests to enable them to understand their specific reading strengths and weaknesses.

For example, very early in the semester, each student is given the Nelson-Denny or Nelson test. The determination of which test is made on the basis of the student's SCAT Test Scores and on the type of classes he is taking. If a student scores below the seventh grade level, the Nelson test is administered. The Nelson-Denny test is given to all other students.

Immediate scoring by the use of the computer makes it possible for students to be guided initially to materials with which they can be successful.

We build our instructional program on additional diagnostic testing, such as the STEP Test. The objective of this diagnosis is to analyze more thoroughly specific comprehension disabilities.

The results on the first diagnostic test, the Nelson-

Denny, help determine which level of the STEP Test to administer. Forms 1, 2, and 3 are used, based on whether the student is reading at college, high school, or below seventh grade level. Regardless of the fact that the student is in college, if his reading ability is below seventh grade, taking the College Level STEP Test can be very defeating and will not give information about the student's reading skills needs. We try to administer the STEP Test at a level that will yield information about his abilities to select main ideas, make inferences, and analyze prose.

One advantage of our prescriptive strategy is that STEP Tests are scored by computer immediately and are returned to students the following class session. The Datatronics Test Scorer is located in the Learning Center. Test answer sheets are instantaneously scored at the rate of thirty tests per minute and incorrect answers are indicated.

The immediacy of this rapid scoring procedure offers direct prescriptive analysis for follow-up during lab and tutorial sessions.

After each diagnostic test is scored, interpretation is given to the entire class or to the individual groups. An attempt is made to help students understand what is measured by the test and what their individual results indicate.

Each student completes an actual analysis of his STEP Test errors. This requires the student to count and tally the errors he made and gives him an account of his performance on the skills measured by the STEP Test.

Each of the skills measured and the types of materials used on the STEP Test are explained to the students. Instructional resources appropriate for each type of skill are listed for students so they may choose materials which will be most helpful during classroom study and laboratory practice.

Materials are available in the Learning Center on many different levels, so every effort is made to help the students identify their reading weaknesses and to guide them to practice skills at their appropriate reading level.

In discussions, the emphasis is always on helping students analyze their own reading strengths and weaknesses so that the instructor can guide each individual to materials and tutorial help which will be of most assistance.

Study Skills are of concern to students. If after discussions of good study habits, a student wishes additional information about his study problems, he may request to take the Christ Survey of Reading/Study Efficiency or the Brown-Holtzman Survey of Study Habits and Attitudes, which will give him prescriptive information about the areas in which he is deficient. Auto-tutorial materials on several levels of difficulty are available and students can be directed to appropriate resources.

A system for memorization entitled "Learning Through Association" is available for students wishing this training. The DuKane Projector makes it possible for a sychronized

film strip and audio tape to be used by individual students. A film strip series on "Effective Study Habits" providing a short, comprehensive review of study skills is also used with this projector.

The EDL Listen and Read tapes are available for specific instruction in content areas such as how to read mathematics books, how to underline textbooks, and how to take notes in lectures. Students who feel the need of such instruction are guided to appropriate auto-tutorial lessons.

We are receiving a growing number of requests for spelling aids. Comprehensive, self-guided spelling assistance has been developed by the Reading Center. Diagnostic tests are recorded on cassette tapes so students may inventory their present spelling problems. After completing diagnostic tests, students are guided to programmed books available and to specific skills cards in the SRA Spelling Lab. Several well-qualified tutors are available to assist students to improve spelling skills.

Some students who do not have serious spelling problems or who feel that the problems they have with spelling are not their most immediate ones--use the spelling resources selectively. This section of the Learning Center is used voluntarily by many students who are not enrolled in reading classes but who feel the need to develop spelling ability. Students may use the spelling aids as needed.

Since most students enroll in a reading class for only one semester, we try to guide each student to as much specific material as possible which will help him overcome his most severe reading and study problems. Throughout the semester, the instructors and lab assistants help the students analyze comprehension, vocabulary, and flexibility skills most needed. If a student uses that media which he feels actually helps him, he often comes back during subsequent semesters to use additional resources which he was unable to use while in a reading class.

For some students it is apparent that the large group testing does not provide enough diagnosis of his reading difficulties. Especially when a student is a very poor reader, additional individual tests must be administered.

Diagnosis is a continuing process and as instruction progresses, instructors or tutors may administer individual tests. The purpose is to assess basic word attack skills and related comprehension problems.

Students who are extremely poor readers are often unable to profit from independent use of auto-tutorial materials. Tutors, therefore, are available to work with individual students or with small groups. After the instructor prescribes work for the students, tutors work with them so that questions and misunderstandings may be dealt with immediately.

When there are many students in a class who have low reading ability, a tutor may meet with the class so that students will become familiar with the tutor--and so that the tutor will be able to follow-up instruction started in the

class. By meeting with the class, the tutor has regular contact with the instructor and individual plans of study for students can be discussed.

Word Attack Prescription

When a student's diagnosis indicates reading skill below the seventh grade level, work attack skills are definitely prescribed. The L-100 Work Shop is a literacy program which aids students at various levels. The program consists of synchronized audio and visual materials which introduce sight words and basic word attack skills. Listening, speaking, reading, and writing are developed. The students are under the supervision of an instructor assisted by a paraprofessional who spends needed time with each group.

Informal diagnostic inventories are often administered individually to help pinpoint word attack needs and to analyze the student's progress.

The Language Master provides listening and speaking drill on core vocabulary and the Dolch Word List. Students needing help with English as a second language utilize specialized materials on the Language Master. A video tape using visual and voice aids is now being prepared to teach basic sight words.

The Tactics I and II language skills kits are used in the classroom and with laboratory assignments to develop word attack skills. This programmed material has a convenient pre-and post-inventory that guides students to specific word attack and comprehension needs.

Graded Readers' Digest stories with accompanying audio tapes are beneficial for students needing additional sight work reinforcement.

Literacy class instruction is built around a basic text which incorporates word attack skills. Regular Learning Center assignments follow class instruction. The classes are divided so that teachers and teachers' aides are able to help students with more personal reading problems.

Vocabulary Prescription

The EDL Word Clues graded books are used for vocabulary instruction. This material provides programmed practice in the use of context, and dictionary study.

Student placement is determined from the Nelson-Denny or Nelson test. Each student chooses one Word Clues book from the seven grade levels used. This means that in a single class there may be students working on seven different levels of vocabulary.

The Learning Center System is designed to support all levels of individualized vocabulary needs. All Word Clues vocabulary words have been printed on E. F. I. Audio Flashcards for listening and pronunciation practice. We strive to enable each student to make the 300 words in his vocabulary book a functional part of his spoken and written practice.

Distributed practice and periodic evaluation has provided an effective program in vocabulary skills.

Some teachers encourage students to develop personal vocabulary lists. A definition and a relevant sentence is used for each new word. Class vocabulary sharing of students' new words provides stimulating follow-up.

Our diagnostic and prescriptive procedures direct students to a variety of resources to assure systemic instruction in word attack, comprehension, and extended vocabulary training. Students whose vocabulary development is not at college level may wish to concentrate on vocabulary practice. Those who wish to develop additional vocabulary skills may be guided to the Craig Vocabulary-Preview-Read Program. This program relates vocabulary to general fluency since the student learns how to preview material, vary speed, and extend understanding of new words. Pre and Post-tests are administered so that students may note their improvement.

This program offers the advantage of developing reading skills along with vocabulary improvement.

Students with good vocabularies who wish further development at advanced levels find the Bergan-Evans Practical Vocabulary Improvement materials useful. The tapes in this series are used with the E.F.I. wireless system which transmits vocabulary exercises to one or more students in the Learning Center. The materials stress the use of words in context with emphasis on learning groups of related words so that students understand the distinctions between the words. Even advanced students can often learn new words more readily and are able to make the words part of their spoken and written vocabulary with this system.

Comprehension Prescription

Vocabulary instruction is best related to the total comprehension process. Our diagnostic data in comprehension breaks down these skills on the taxonomy. Our objective is to be aiding the student in identifying specific aspects of his comprehension problems. We get this through screening of the specific STEP Test skills. In addition, the tutor and instructor interviews students for additional needs.

For example, Reading Skills are broken down into two major areas on the STEP Test: Comprehension Skills and Types of Materials.

The breakdown of these can be illustrated this way:

Comprehension Skills	Type of Material
1. Reproduce ideas	1. Directions, announcements
2. Translate, make inferences	2. Information, explanations
3. Analyze motivation	3. Letter
4. Analyze presentation	4. Story
5. Criticize	5. Poetry
	6. Opinion, interpretation
	7. Play

For example, if a student is low on Item 1, Reproducing ideas, he is given an explanation of a number of sub-skills related to this first level of comprehension. Where the problem is critical, an instructor may discuss the specific skill in some detail. The student is questioned and encouraged to verbalize his own concerns about why he may be low in that area. The objective is to put the responsibility on the student while acquainting him with the Learning Center's available aids.

Since each student analyzes his own STEP Test errors, he knows the areas that need his attention. For instance, if a student had difficulty with Skill 3, Ability to Analyze Motivation, he may refer to the information sheet about that skill and find audio tapes which would be of value to him.

Another student's test results may indicate that he needs work with a type of material such as Opinion and Interpretation. Another information sheet lists the tapes, programmed books, and special practice materials available in the Learning Center that would be beneficial in learning to understand Opinion and Interpretation. Such lists are available for five skills and seven types of material listed on the STEP Test.

Nearly all materials in the Learning Center are marked with letters so that students can distinguish between easy and difficult material. On the lists of suggested activities for each STEP Test area, levels of difficulty are indicated by these letters.

A similar prescriptive procedure is followed for students needing help in an area such as reading poetry. The student may merely listen to a tape with poetry being read, or he may follow an analytical explanation on an auto-tutorial program.

Students receive some group instruction for purposes of clarifying general comprehension problems and are then directed to individual activities in the Learning Center. The Center provides considerable instructor and tutorial follow-up since a room filled with instructional media can appear rather sterile without careful concern for human contact.

Speed and Flexibility Prescription

College Reading programs should give students a proper perspective on the role of speed and flexibility. There has been so much commercial exploitation in this area that concern about speed and flexibility is too often distorted.

Students do need to be taught that not all reading material is read with the same thoroughness and speed. Some instruction in how to scan a book to decide whether it should be read at all is appropriate. There are rather specific skills associated with skimming and scanning that can be diagnosed and taught as needed. The EDL Reading Versatility Tests can serve a useful diagnostic purpose.

Research indicates that poor perceptual skills often

are a symptom of poor readers. San Bernardino Valley College has worked on these skills where necessary with over five thousand students during the past six years. There is no question that many students have directly benefited from training in developing directionality and speed through pacing practice. The key point is that students can be taught to read flexibly, and they can increase their rate. It is important that students be encouraged to develop perceptual skills such as directionality in conjunction with everything they read.

Instructional media is extremely beneficial since it can provide a comprehensive structured program available to students for use on an individual basis. In a college learning center where the objective is to diagnose and prescribe appropriate perceptual training to hundreds of students each year, reading pacing devices can be useful. Undoubtedly, much excellent training can be done without the aid of pacing devices. However, what college can afford the staff for the small group instruction necessary if pacing and flexibility is to be taught directly by the instructor? Through the use of media one can individualize instruction for a large number of students since they can work independently in the lab.

The use of the Learning Center and the available reading pacers is designed to help the student read more flexibly without a pacer. However, this is a developmental process. It may begin with extensive perceptual training in directionality with the Controlled Reader, but the student is then encouraged to move into other types of pacing devices and finally to paperbacks or college textbooks.

Content Subject Application

The extension of the prescriptive model to specific college disciplines can offer promising paths to effectiveness for college reading programs. The service role of the reading program cannot be overemphasized. The English Department's problem is developing communication skills for a population of wide ranges of ability. The Learning Center's role is to help the English Division accomplish this objective.

At San Bernardino Valley College the Learning Center has assisted the English Division in developing a specialized prescriptive course for students concerned about reading materials used in English 1A. Students are encouraged to elect an English 1A course specially designed jointly by the English Division and the Learning Center. The English staff now gives a test to identify their student's reading problems. The Learning Center assists in developing the most effective prescriptive program for the special needs of English 1A students. Over three hundred students will be enrolled in the new course in the fall.

A similar prescriptive package has been developed for Humanities. Special reading problems face the Humanities

student who must master the special vocabularies of art, music, philosophy, and literature. In addition, the student is expected to read competently a comprehensive text in the Humanities. Specially prepared study guide tapes were developed for the specific reading problems associated with this text. The Humanities staff has taken a responsible role in identifying specific skills areas and has actually prepared many of the independent study materials.

In addition, a series of background lectures utilizing slides and cassette tapes is available for each section of the textbook. Five hundred Humanities students used these resources during the fall semester. Student evaluations of these reading aids received the highest praise.

A video tape on how to read Goethe's Faust is currently being prepared.

These examples of the English and Humanities Divisions direct involvement in organizing and utilizing the Learning Center's resources are positive examples of interdisciplinary prescriptive models which work.

Summary

Our goal is to approach the total learning process with a concern for all its components, cognitive skills, psychomotor skills, and affective needs. Community college reading programs must develop reading strategies where students work effectively on these goals and develop, in the process, independence as students.

The Learning Center exists to assist students. We want to help students realistically appraise their own needs and then overcome their difficulties. We strive for "satisfied customers." When students feel they come to the Learning Center and found a concerned staff that could and did assist them, we feel we have accomplished our goals.

We leave you with this final thought. We are surrounded by beautiful, frightening, fulfilling changes, and the changes are the people who surround us.

These students are the one whose fructification we touch but for a moment. Endemic within these students lies the new, glorious, hopeful world of today's tomorrow.

Thus, our thrust must be person centered, for these students will fructify the claims of the future.